DOCUMENT RESUME

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TITLE	Experimental and Demonstration Program, Copper Country Intermediate School District. End of Budget Period Reports 1972 and 1973.
INSTITUTION	Michigan State Dept. of Education, Lansing.
PUB DATE	73
NOTE	109p.; The financial material was removed since it is not appropriate for the ERIC System
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IDENTIFIERS	Orff Music Program

ABSTRACT

End of budget period reports are presented for an experimental and demonstration program aimed at increasing the learning process and achievement of K-4 children and to effect internal and external change in teachers' attitudes and behavior. The program, instituted in a rural, low income area, consists of an Orff music program and a theater program. Standardized tests were administered to students and subjective attitudinal measures were administered to parents, teachers, and students. The reports cover the fiscal years 1971-72 and 1972-73. Both contain sections on statistical data and evaluation data. Statistical data includes project information, budget summary, direct and indirect participation, rural/urban distribution of students, and application and cooperating school districts information. Evaluation data encompasses community, school, program, and participant characteristics; major project goals; design; data analysis; findings; recommendations, information evaluative response; and project evaluation documents. (Author/KSM)

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MICHIGAN DEPARTMENT OF EDUCATION

ESEA TITLE III

Lansing, Michigan 48902

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END OF BUDGET PERIOD REPORT

So 007 508

MICHIGAN DEPARTMENT OF EDUCATION

ESEA TITLE III

Lansing, Michigan 48902

TABLE OF CONTENTS

I. STATISTICAL DATA SECTION

II. FINANCIAL DATA SECTION

III. EVALUATION DATA SECTION

MICHIGAN DEPARTMENT OF EDUCATION

ESEA TITLE III

Lansing, Michigan 48902

PART I

STATISTICAL DATA

GE-4392
8/72

Michigan Department of Education
General Education Services
ESEA TITLE III UNIT
Box 420 Lansing, Michigan 48902

ART I - STATISTICAL DATA

ESEA TITLE III STATISTICAL DATA

Elementary and Secondary Education Act of 1965 (P.L. 89-10)

THIS SPACE FOR STATE USE ONLY

BUDGET PERIOD	PROJECT PERIOD	PROJECT NUMBER	No. of LEA's Served
Beginning Date Ending Date	☐ 1st ☐ 2nd ☐ 3rd		

FILING INSTRUCTIONS: Return the ORIGINAL (BLUE) copy and four WHITE copies not later than 90 days after the date of termination of the BUDGET PERIOD to the STATE address indicated above. Retain ONE copy.

SECTION A - PROJECT INFORMATION

EDUCATIONAL AGENCY	Legal Name	District Code No.	Telephone -- Area Code/Local No.
	Copper Country Intermediate School District	31 000	906 482-4250
	Address: 302 Front Street	City: Hancock	County: Houghton	Zip Code: 49930

REASON FOR SUBMISSION OF THIS FORM (Check One Only)

A. [ ] Application for Initial Grant (First Budget Period)
B. [ ] Application for Second Budget Period
C. [ ] Application for Third Budget Period
D. [X] End of Budget Period Report

IN ALL CASES EXCEPT THE INITIAL GRANT, GIVE THE MICHIGAN DEPARTMENT OF EDUCATION ASSIGNED PROJECT NUMBER. 0352-0572

EMPHASIS OF PROGRAM (Check One Only) [ ] Experimental [XX] Demonstration

TYPE OF ACTIVITY (Check One Only)

A. [ ] Planning of Program
B. [XX] Operation of Program

PROJECT TITLE (10 Words or Less) RURAL MICHIGAN PERFORMING ARTS PROJECT

PROJECT FOCUS (Check One Only)

A. [XX] General Education
B. [ ] Handicapped
C. [ ] Guidance and Counseling

TITLE III BUDGET SUMMARY FOR PROJECT

STATE USE ONLY

	BEGINNING DATE Month	BEGINNING DATE Year	ENDING DATE Month	ENDING DATE Year	FUNDS REQUESTED	NEGOTIATED BUDGET
A. Application for Initial Grant (First Budget Period)						
B. Application for Second Budget Period						
C. Application for Third Budget Period						
D. Total Title III Funds						
E. End of Budget Report (Final)	July	71	June	72		

PROJECT DIRECTOR OR CONTACT PERSON

Name	Title	Address (Number, Street, City, State, Zip Code)	Phone Number Area Code
Paul D. Kimball	Assistant Superintendent	302 Front St., Hancock, Mich.	482-4250 906

Name of Person Authorized to Receive Grant: Katherine G. Heideman, Superintendent 302 Front Street, Hancock, Mich. 49930

Signature of Person Authorized to Receive Grant	Phone Number Area Code
Katherine G. Heideman	482-4250 906

CTION B- PARTICIPANTS

NO. OF PARTICIPANTS

	SCHOOLS	STUDENTS			TEACHERS		OTHER	
		Elem.	Sec.	Adult	Elem.	Sec.	Prof.	Non-Prof.
DIRECT PARTICIPATION	*PUBLIC	685		27	26		6	13
	• NON-PUBLIC	149		3	9			
INDIRECT PARTICIPATION	*PUBLIC			7,400				
	• NON-PUBLIC							

*Refer to Instructions.

TOTAL NUMBER AND PERCENTAGE OF STUDENTS DIRECTLY SERVED

	WHITE	NEGRO	ORIENTAL	LATIN AMERICAN	AMERICAN INDIAN	TOTAL
Number	1010	2			2	1,014
Percentage	99.6	.0019			.0019	100%

NUMBER AND PERCENTAGE OF RURAL/URBAN DISTRIBUTION OF STUDENTS BEING DIRECTLY SERVED BY PROJECTS

	RURAL [1]		STANDARD METROPOLITAN AREA [2]		OTHER URBAN [3]		TOTAL PARTICIPATION [4]
	FARM	NON-FARM	LOW-SOCIO-ECONOMIC	OTHER	LOW-SOCIO-ECON	OTHER	
a. Number of Participants being Directly Served	152	862					1,014
b. Percentage being Directly Served	.15	.85					100%

RURAL means an outlying area of less than 2,500 inhabitants.

STANDARD METROPOLITAN AREA-LOW-SOCIO-ECONOMIC AREA means an area with low-socio-economic level within a city of 50,000 inhabitants or more.

OTHER URBAN means areas with less than 50,000 inhabitants but more than 2,500 inhabitants; this category includes suburbs.

The total percent distribution must total 100%.

ECTION C- APPLICANT SCHOOL DISTRICT INFORMATION

GENERAL INFORMATION

GENERAL INFORMATION	U.S CONGRESSIONAL DISTRICT	MICHIGAN	
		Senate District	Rep. District
plicant District	11th	38th	110th

DISTRICT AVERAGE PER PUPIL EXPENDITURE

	LOCAL	STATE	OTHER	TOTAL
BUDGETED FOR CURRENT FISCAL YEAR	257	529	17	786
ACTUAL PRECEDING FISCAL YEAR 1969-70	367	292	28	687
SECOND ACTUAL PRECEDING FISCAL YEAR 1968-69	272	277	29	578

APPLICANT SCHOOL DISTRICT ENROLLMENT

		GRADES							ADULT	OTHER	TOTALS
		PRE-K	K	1	2	3	4-6	7-12			
ENROLLMENT OF APPLICANT SCHOOL DISTRICT	Public*	30	675	750	745	762	2222	4416			9,793
	Non-Public**			19	29	27	74	57			206
PERSONS DIRECTLY SERVED BY PROJECTS LIVING IN APPLICANT DISTRICT	Public	30	254	275	264	70	58				951
	Non-Public			19	29	27	74				149

*DS-4061 DISTRICT SUMMARY: 1971 Fourth Friday Membership and Personnel Report
**DS-4325 Private & Parochial School Membership Report

ECTION D- COOPERATING SCHOOL DISTRICT INFORMATION

COOPERATING SCHOOL DISTRICTS (PUBLIC AND NON-PUBLIC)

		GRADES							ADULT	OTHER	TOTALS
		PRE-K	K	1	2	3	4-6	7-12			
ENROLLMENT OF COOPERATING SCHOOL DISTRICTS	Public*	120	254	275	264	289	789	1495			3,486
	Non-Public**			19	29	27	74	57			206
PERSONS DIRECTLY SERVED BY PROJECTS OTHER THAN THOSE APPLICANT DISTRICT	Public										
	Non-Public										

*DS-4061 DISTRICT SUMMARY: 1971 Fourth Friday Membership and Personnel Report
**DS-4325 Private & Parochial School Membership Report

COOPERATING SCHOOL DISTRICTS (PUBLIC AND NON-PUBLIC)

TOTAL NUMBER OF COOPERATING SCHOOL DISTRICT DIRECTLY SERVED	U.S. CONGRESSIONAL DISTRICTS REPRESENTED (LIST DISTRICT(S) NUMBER)	STATE MICHIGAN REPRESENTATION (LIST THE NUMBER(S))	
		Senate	Rep.
5	11	38	110

AVERAGE PER PUPIL EXPENDITURE OF COOPERATING SCHOOL DISTRICTS

LEGAL NAME OF COOPERATING SCHOOL DISTRICT	AVERAGE PER PUPIL EXPENDITURE			
	Local	State	Other	TOTAL
Adams Township School District	231	631	27	889
Dist. No. 2 of Calumet Township	226	498	45	769
Chassell Township Schools	228	494	3	725
Hancock Public Schools	250	515	13	779
Stanton Township Schools	301	520	11	832
Lake Linden-Hubbell Public Schools	306	417	1	724
Sacred Heart Central School	not available			
Head Start				1120

ERTIFICATION: I certify that the information submitted on this report is true and correct to the best of my knowledge.

ate 10/30/72 Superintendent or Authorized Official Katherine G. Heidemann (Signature)

Contact Person Paul Kimball Telephone 906 482-4250
Area Code/Local No.

MICHIGAN DEPARTMENT OF EDUCATION

ESEA TITLE III

Lansing, Michigan 48902

PART III

EVALUATION DATA

GE-4499
7/72

Michigan Department of Education
General Education Services
ESEA, TITLE III PROGRAM
Box 420 Lansing, Michigan 48902

ESEA, TITLE III PROJECT EVALUATION REPORT

UCATIONAL AGENCY	Legal Name of School District: Copper Country Intermediate Sch. Dist.	District Code No.: 31 000	Telephone – Area Code/Local No.: 906 482-4250
	Address: 302 Front Street	City: Hancock	Zip Code: 49930

ILING INSTRUCTIONS: Return the ORIGINAL (BLUE) copy and four WHITE copies not later than 90 days after the date of termination of the BUDGET PERIOD to the STATE address indicated above. Retain ONE copy.

CTION A: COMMUNITY CHARACTERISTICS (Answer in terms of where the target population lives.)

What has been the average population trend during the last three years in your community? (Check One Only)

- [ ] a. Decreasing
- [X] b. Stable
- [ ] c. Increasing (1–5%)
- [ ] d. Increasing (6–10%)
- [ ] e. Increasing (more than 10%)

What has been the average unemployment rate during the last three years in your community? (Check One Only)

- [ ] a. 0–1%
- [ ] b. 2–5%
- [ ] c. 6–8%
- [ ] d. 9–11%
- [X] e. More than 11%

What is the average income level in your community? (Check One Only)

- [ ] a. 0–$5,000
- [X] b. $5,001–$7,500
- [ ] c. $7,501–$10,000
- [ ] d. $10,001–$15,000
- [ ] e. More than $15,000

What is the major occupation in your community? (Check One Only)

- [X] a. Small Business
- [ ] b. Light Industry
- [ ] c. Heavy Industry
- [ ] d. Professional
- [ ] e. Farming
- [X] f. Other (describe) heavy population of state and federal employees

CTION B: SCHOOL CHARACTERISTICS

How many school buildings are there in your school district?

a. Elementary	25
b. Secondary	9

How many school buildings are there in the project?

a. Elementary	6
b. Secondary	

The current enrollment trends over the last three years can best be characterized as: (Check One Only)

- [ ] a. Decreasing
- [X] b. Stable
- [ ] c. 1–3% Increase
- [ ] d. 4–6% Increase
- [ ] e. 7–10% Increase
- [ ] f. Over 10% Increase

The most recent millage request

- [X] a. Passed
- [ ] b. Failed

Has the school district recently suffered financial cutbacks?

- [ ] a. Yes
- [X] b. No

TION C: PROGRAM CHARACTERISTICS

The critical need which the project primarily focuses upon is: (Check One Only)

- [X] a. Basic Skills Development
- [ ] b. Alternative Instructional and Organizational Patterns
- [ ] c. Career Development
- [ ] d. Social Action
- [ ] e. Special Education
- [ ] f. Other (describe) _____

Was the need internally assesed?

- [ ] a. Yes
- [X] b. No

If "YES", Check One or More of the following methods:

- [ ] a. Individual Opinion
- [ ] b. Group Opinion
- [ ] c. Survey
- [ ] d. Student Achievement Results
- [X] e. Other (describe) [illegible]

If "NO", Check One or More of the following methods:

- [ ] a. Individual Opinion
- [ ] b. Group Opinion
- [ ] c. Survey
- [ ] d. University Sponsored Study
- [ ] e. Contracted Report
- [ ] f. Other (describe) The program was as a result of national assistance, an assessment.

Is the program a modification of a previously existing program?

- [ ] a. Yes
- [X] b. No

Who was primarily responsible for developing the IDEA for the program? (Check One Only)

- [ ] a. Local Administration
- [X] b. ISD Administration
- [ ] c. Instructional Staff
- [ ] d. Students
- [ ] e. Community
- [ ] f. Commercial Firm
- [ ] g. University
- [X] h. Other (describe) in cooperation with the National Guild of Community Music Schools and Michigan Council for the Arts.

Was the program faced with unusual social or economic conditions?

- [ ] a. Yes
- [X] b. No

If "YES", please describe these conditions

CTION D: PARTICIPANTS

The major target population in this project is: **(Check One Only)**

- [X] a. Students
- [X] b. Teachers
- [ ] c. Aides
- [ ] d. Administrators
- [X] e. Parents
- [ ] f. Counselors
- [ ] g. Other (describe) _____

If the major target population is students, then indicate the average age.

YEARS	MONTHS
6	

Indicate in the appropriate boxes, the number of participants who were in the project when it started, and the number in the program as of the end of the first year.

PARTICIPANTS	NUMBER OF PARTICIPANTS	
	Start of Program	End of Program
a. Students	1,100	1,100
b. Teachers	40	40
c. Aides	11	11
d. Administrators	10	10
e. Parents	0	0
f. Counselors	0	0
g. Project Staff (include Director)	6	6
h. Others	3	3

If participants left the program, did they leave because they were dissatisfied with the program?

- [ ] a. Yes
- [X] b. No

If the major target population is student, then indicate the grade level span represented in the program.

pre Sch. To 2

Did the program serve significantly more boys than girls?

- [ ] a. Yes
- [X] b. No

What choice(s) best describes the participation of the target population: (Check Two if Appropriate)

- [X] a. Voluntary
- [ ] b. Involuntary
- [ ] c. Random Selection
- [ ] d. Random Stratified Selection
- [X] e. Total Population
- [X] f. Other (describe) population finally selected were those with similar characteristics.

Was the target population involved in any other special programs aimed at meeting similar critical needs?

- [ ] a. Yes
- [X] b. No

If "YES", describe the program.

Discuss any other special characteristics which are necessary to describe the target population of the program.

None of the children in the target population has or had any other similar training.

All are in what can be considered a rural area .

All of the teachers are involved in the program actively.

The children come from varied ethnic backgrounds.

TION E MAJOR PROJECT GOALS

Restate the major goals from your first year application for the first year of the project. Indicate by placing an "X" in the appropriate box the goals that were achieved.

- ☐ 1 To make available to area children an in-depth introduction to perf. arts
- ☒ 2 To provide a live exposure to the arts for area youth and adults
- ☐ 3 To train individuals to function actively in the performing arts
- ☒ 4 To make an impact on the community; to fill a void that exists in the lives of children and adults in a rural environment.
- ☐ 5 To affect upward the overall learning process and academic achievement.
- ☐ 6 To ensure the permanence of the performing arts concept as part of the regular curriculum in the schools when the project is ended.
- ☒ 7 To disseminate information about the project.
- ☒ 8 To make evaluations to determine effectiveness of the project.
- ☐ 9.
- ☐ 10.
- ☐ 11.
- ☐ 12.
- ☐ 13.
- ☐ 14.
- ☐ 15.
- ☐ 16.
- ☐ 17.
- ☐ 18.
- ☐ 19.
- ☐ 20.
- ☐ 21.
- ☐ 22.
- ☐ 23.
- ☐ 24.
- ☐ 25.
- ☐ 26.
- ☐ 27.

Which percentage figure best describes the total number of performance which were achieved in the first year of this program? (Check One Only)

- [ ] a. 0–25%
- [ ] b. 26–50%
- [ ] c. 51–75%
- [X] d. 76–90%
- [ ] e. 91–100%

Are you reporting on all of the program performance objectives in that section of this report dealing with findings? (Check One Only)

- [ ] a. Yes
- [X] b. No

If "NO", please explain why you have deleted some of the objectives.

Not reporting on all objectives. As reported earlier in the on-site visit our dissemination program was just begun and will be an integral part of year two. A report at that time would cover the objectives adequately.

CTION F: DESIGN

Which of the following designs were used in the evaluation of this project? (Check All That Apply)

- [ ] a. Pretest-Postest (Experimental group only)
- [X] b. Pretest-Postest (Experimental and comparison groups)
- [ ] c. Postest (Experimental group only)
- [ ] d. Postest (Experimental and comparison groups)
- [ ] e. Other (describe) _____

What measures were applied to find out if the aims of the project were achieved? (Check All That Apply)

- [X] a. Questionnaire
- [X] b. Standardized Tests (group)
- [ ] c. Teacher Made Tests
- [X] d. Observations
- [ ] e. Diagnostic
- [ ] f. Unobtrusive Measures
- [ ] g. Other (describe) _____

If observations were made, were the observers specially trained?

- [X] a. Yes Some parents - some trained specialists.
- [ ] b. No

TION G DATA ANALYSIS

STANDARDIZED TEST RESULTS

COLUMN INSTRUCTIONS

COLUMN 1: Provide the name and form of the test used.

COLUMNS 2–3: Provide DAY, MONTH, and YEAR of pre- and post-test applications. If you cannot remember the exact dates, please estimate them as closely as possible.

COLUMN 4: Supply the grade level of the children tested. Remember, provide separate information for each grade level if possible

COLUMN 5: Provide the number of children tested.

COLUMN 6: Provide the LOWEST pretest score from all students for whom both pretest and posttest scores are available.

COLUMN 7: Provide the HIGHEST pretest score from all students for whom both pretest and posttest scores are available.

COLUMN 8: Provide an estimate of the average hours the children were involved in the project between PRE- and POST-TESTS.

COLUMNS 9–10: Provide the pre- and post-test averages in grade equivalent scores.

COLUMNS 11–12: Provide the difference between pre- and post-test averages.

TEST NAME AND FORM NUMBER	WHEN ADMINISTERED (Day, Month and Year)		GRADE	NUMBER OF STUDENTS	PRETEST SCORE		AVERAGE NUMBER OF HOURS CHILDREN INVOLVED IN PROJECT	PRE TEST AVG.	POST TEST AVG.	AMOUNT OF CHANGE	
	Pre	Post			Lowest	Highest				Gain	Loss
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
SEE ATTACHED TECHNICAL SUPPLEMENT											

NON-STANDARDIZED RESULTS. (Cite results obtained from other measures. Please describe these other measures.)

Was any statistical analysis of the data undertaken?

- [X] a. Yes
- [ ] b. No

If analysis was undertaken, which of the following was used? (Check All That Apply)

- [ ] a. Chi Square
- [ ] b. T-Test
- [X] c. Analysis of Variance
- [ ] d. Analysis of Covariance
- [ ] e. Pearson Product-Moment Correlation
- [ ] f. Other (describe) _____

CTION H FINDINGS

Please indicate below, the findings with regard to this project.

a. _____

b. SEE ATTACHED TECHNICAL SUPPLEMENT

c. _____

d. _____

e. _____

f. _____

g. _____

h. _____

i. _____

j. _____

k. _____

l. _____

m. _____

n. _____

o. _____

p. _____

q. _____

r. _____

s. _____

t. _____

u. _____

v. _____

w. _____

x. _____

Which of the above findings are based upon data which is statistically significant? (Please list by the appropriate letters in Item I. above.)

_____

Can any of the findings in Item I. above be generalized?

☐ a. Yes
☐ b. No

If "YES", indicate by letter which ones.

_____

TION I: RECOMMENDATIONS FOR IMPROVEMENT

ROJECT IMPROVEMENT

What recommendations for project improvement can be based upon your findings? (i.e., What are you going to do differently in year number two?)

1. We are going to do a good deal more supportive work by going back with the teaching staff.
2. Our assessment indicates that teachers have very little educational background in child development and creative activity and we are going to focus on this point.
3. We are going to use our specialist in teacher training.
4. More frequent consultations with the advisory committee.
5. We are going to do a lot more in-service work with our own staff (meaning having them teaching and in the field with the teachers in the project schools.
6. We are now ready to dessiminate a good deal more information.

ICHIGAN DEPARTMENT OF EDUCATION

What recommendations can be made to the Michigan Department of Education as a result of your findings? (i.e., Project should be replicated in the southeast area of the State at a rural district or project should be expanded in terms of budget.)

Because the project is being monitored by both the State and Federal offices, we feel that the results of this demonstration should be completely verified before reproduction.

3. REPLICATION

A. At this point in time, what component(s) of this project can and should be replicated by other school districts?

This part (replication) should be planned in the spring and perhaps implemented in the years that follow in all parts of the State if the trends continue in evaluation.

B. What costs could be eliminated if the entire project were to be replicated by another district?

At this point we are not sure but it would appear that the strategies and objectives of this program should be assumed by all elementary schools. When the results are completely known, and a school was to replicate I would imagine that the schools would assume the training costs which would mean the elimination of all but equipment purchasing and some management costs. Our objective is to train local expertise and not add on costs or to indicate a rearrangement of priorities by local schools.

C. What costs are essential for starting up the project?

Equipment and inservice.

CTION J: INFORMAL EVALUATIVE RESPONSE

lease use this opportunity, if you so desire, to express any feelings, reactions, concerns, etc. with regard to your project which you el need to be stated.

We feel that the Division's attempt to give us guidance on contracts and evaluation has been most helpful. This was one of our major problems during the past year. In addition we feel that meetings with the consultant for evaluation, the state consultant, and project staff should be on a regular basis to speak to us on such problems as:

1. Objectives, procedures and instruments to be used when the recommendations indicate a change.

2. To provide information on the measurement of factors that may be of interest to the State outside of the project objectives.

3. To provide earlier in the projects, the dissemination of responsibilities of projects.

CTION K: PROJECT EVALUATION DOCUMENTS

ttach one (1) copy of any evaluation material (including locally developed instruments) available during the first year of peration by your staff or your contracted evaluator. (Please list below all attachments)

SEE SUPPLEMENT

Attachments:

Technical Supplement - list of instruments - questionnaires
Proposal for Michigan Council for the Arts grant
Upper Great Lakes Regional Commission grant proposal from the Department of Natural Resources
Brochure (dissemination)

ATTACHMENTS

1. Technical Supplement
2. Test Plan (list of instruments)
3. Teacher Interview Guide
4. Parent Opinion
5. Student Opinion (Smiling Face questionnaire)
6. Grant Proposal for Theatre (Michigan Council for the Arts)
7. Grant Proposal for Theatre (Department of Natural Resources
8. Brochure

OCT 18 1972

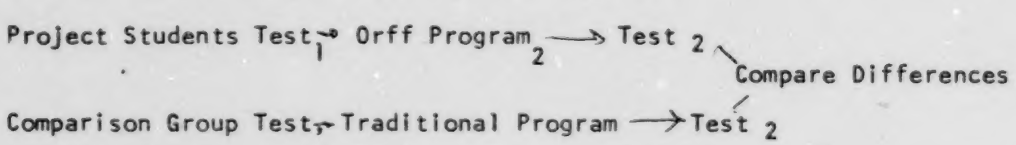
Rural Michigan Performing Arts Project - Technical Supplement

Dr. Gil Mazer

A. Research Design

Objective Evaluation of the effects of the Orff-Kodaly approach to teaching was concerned with several dimensions of child development including intellectual competence, academic achievement and perceptual motor skills. Thus, the research design employed attempted to directly assess the efficiency of the method as an educational strategy and to determine if it is more effective than other methods in promoting achievement, mental and psycho-motor development. To these ends, pre-post measures were taken on several standardized instruments. In addition, these pre-post gains for participating pupils were compared with those of a comparison group to ascertain if growth on these dimensions represent an improvement over current practice.

The research design may be represented as follows:



Pre-testing both experimental and comparison groups allows for a determination of the homogenity of the group at the outset of the experiment which is tantamount to matching.

B. Instrumentation

The standardized instruments employed for measuring development of pupils were four well accepted group tests, The Stanford Achievement Test, (SAT) which measures scholastic achievement, the Tests of Basic Experiences, which measures the extent to which children have acquired concepts essential to

their progress in school, The Otis Lennon Mental Ability Test, and finally The Purdue Perceptual Motor Survey which is a highly respected and widely used measure of perceptual and motor development. The Stanford Achievement Test which was selected to measure scholastic achievement, is one of several highly regarded and well tested achievement tests which have excellent psychometric properties. The first edition of the test was published in 1923 and since that time the achievement series has been continuously upgraded and improved both in terms of a psychometric characteristics as well as in ease of administration and interpretation.

The Primary One battery which was employed in the present study, is primarily a reading test since 5 of the 6 sub-tests are directly related to reading achievement. These include, WORD READING, PARAGRAPH MEANING, WORD STUDY, VOCABULARY DEVELOPMENT, and SPELLING. An additional sub-test involves achievement in arithmetic. The quality of the Stanford Achievement Test can be seen in such characteristics as the reliability indices which range from .78 to .95 and the norm samples which involve as many as 49,000 students. While the test may be subject to some cultural bias, it certainly is a standard in its field. The SAT is also distinguished by its flexible and comprehensive norms and ease of interpretation which is facilitated by the provision of convenient grade level equivalent scores.

The Tests of Basic Experiences was administered to pre-school children to measure gains in mental development and general achievement and in acquiring basic concepts. According to the manual of the TOBE, the general concepts test is a shorter form of the total battery with items abstracted from the mathematics, language, science and social studies sub-tests. The TOBE appears

to be a highly respectable test of mental development and experiential background, and seems psychometrically sound. Considerable data is available for a test of its recency. The standardization sample for the test included more than 10,000 pupils in schools around the country.

To measure mental ability of first and second graders, the Otis Lennon Mental Ability Test were used. The Otis Lennon Tests are another group of easily administered and interpreted instruments with commendable psychometric properties. A revision of the older Otis Alpha and Beta I.Q. Tests, these instruments offer an adequate index of mental development and are useful in estimating likely achievement in academic subjects. As in other tests of their type, cultural bias is difficult to control. Most items place heavy emphasis on verbal and numerical skills. Nevertheless, the Otis Lennon test undoubtedly is valid as any other type and acceptable for general use.

In addition to tests above, the Purdue Psycho-Motor Survey was employed to measure the development of perceptual and psycho-motor skills which are so essential to normal development. According to the manual which was published in 1966, the perceptual motor survey is not really a test but a survey which allows the practitioner to observe a broad spectrum of behavior with a structured but not stereotype set of circumstances.

The behaviors which are systematically observed by the Purdue Perceptual Motor Survey seemed particularly relevant to the performing arts project since the program lays stress on the use of rhythms and motor coordination. The Purdue Tests are probably most subject to inaccurate scoring of all test used in the protocol. Nevertheless, they are undoubtedly the best of their type and yield information which is useful in evaluating the present program.

C. Results - Pre - Post Testing

The results of testing with the four major instruments previously mentioned are presented in two major sections. The first section presents in tabular form changes in achievement during the sixth or seventh month interim period between October and November pre-testing and May post-testing. The second section of results reports differences in gain scores: that is, differences in incremental achievement and development between the experimental groups and who engaged in the program and the control or comparison groups who did not.

Table I, II and III present the results of pre-post testing with the Tests of Basic Experiences in pre-school programs. Table I data is presented for the Head Start Program only. It will be noted that Head Start students showed significant and marked progress in concept development during the period they engaged in the performing arts program. Beginning in the average stanine range of 5 and at a percentile of 59 on national norms, these students post-tested in the 84th percentile and 7 stanine. This is indeed a significant advance.

Table II reports the results of testing 73 Kindergarten students. Here we see similar results, approximating the progress of the Head Start students. Pre-testing placed these students in average ranges on national norms. However, the post-test suggested they progressed significantly and had reached the 78th percentile on the average and 7th stanine following exposure to the Title III program. These results again are statistically significant.

The results of testing with the TOBE for the combined pre-school are presented in Table III. Here again marked advances are seen in progress on the general concepts test of the TOBE. Average performances increased from the 48th percentile and 5th stanine to the 72nd percentile and 6th stanine.

This is of course a significant advance in acquisition of concepts. They suggest the program was successful in assisting students to remove any deficiencies in concept formation which they might have had upon entry to the program.

Tables iV and V present the results of testing with the Otis Lennon Mental Ability Tests. Two types of data are offered, the mental age and I.Q. Table IV presents the results of pre-post testing for grades 1 and 2 combined. It will be noted upon inspection of Table IV that increases in mental age for this combined group surpassed what may have been expected. Actual mental age increases surpassed eight tenths of a year or approximately ten months which exceeds the duration of the experiment. These results are statistically significant. In deviation I.Q. points, it will be noted that the group increased more than two I.Q. points.

Table V separates grade 1 and 2 and reveals some differential growth with regard to mental development. It will be noted grade 2 surpassed grade 1 in growth according to pre-testing with the Otis Lennon. The combined results which were seen in the previous table, appear to have resulted primarily from the rather remarkable progress recorded by the grade 2 students. In the deviation I.Q. column one may note that there was actually a decline in I.Q. points on the part of grade 1 students, although not a significant one. However, students enrolled in grade 2 showed a marked and significant increase in I.Q. points, approximately 5 and of course a corresponding growth in mental age from about 7.3 years to 8.3 years during the experimental period. Thus, the favorable results in I.Q. testing seem to be attributable to the strident progress achieved by the grade 2 students while it may be regarded that grade 1 achieved only average gains.

With respect to the Stanford Tests, pre-post testing was only accomplished for grade 2 due to administrative problems. The results of these pre-post tests are presented in Table VI. In general, it will be noted that significant gains were recorded in all six curriculum or skill areas tested by the Stanford. In tenths of a year, children enrolled in the program seemed to progress about as might be anticipated. Best progress seems to have occurred in the word study and word reading areas while movement in arithmetic and vocabulary skills seems to have been a little slower. The magnitude of the t tests however, shows there was less variation in the performance within the group on the vocabulary and arithmetic sub-tests. Overall, it would appear that progress in this cognitive skill area seems to be satisfactory.

Table VII, VIII, and IX record the results of testing with the Purdue Psycho-Motor Survey. Table VII we see a rather striking and significant progress that was recorded by the pre-school group of 98 students in tests involving muscle control and bodily movement. Progress was less marked in tasks involving perception of form and the like. This differential growth probably reflects the effects of teaching through music and rhythm and practicing large and small muscle movements. Statistically significant gains were recorded on three of the four tests as well as in the total score. Table VIII suggests that the experimental program was less effective with grades 1 and 2 in developing psycho-motor skills than with the pre-school group. Advances came more slowly and only in form perception was a statistically significant change recorded. This may indicate that the Orff Method succeeded in rapidly compensating for any deficiencies in psycho-motor skills which pupils may have entered the program. Table IX combines the results of testing with the Purdue for the total group. The progress

made by pre-schoolers was sufficient to render all the results significant in all categories.

In summarizing the results of pre-post testing, one would conclude that the Orff Method of instruction was highly successful. Progress in all areas of childhood development, both cognitive and psycho-motor seemed rapid and consistent with the potential of these children. Outstanding results were achieved in teaching basic concepts to pre-schoolers and assisting them develop motor and perceptual skills. Advances recorded in deviation I.Q. by second graders also seems a remarkable achievement and bear confirmation upon re-testing to determine whether or not these were chance effects due to a combination of uncontrolled factors.

D. Results: Gain Score Comparisons

The second section of tables compares the progress registered by Orff students, that is, students enrolled in the Title III program with that of students not enrolled in the program but in regular classrooms. Table X through XIII thus compares the gains on the four instruments used in the testing protocol. Inspection of Table X indicates that mean scores or gains as measured by pre and post-test differences resulted in a statistical significant t in favor of the experimental group. In other words, in terms of concept development, the Orff program appeared to be a significant improvement over the traditional educational program for students enrolled in pre-school and Kindergarten classes.

Table XI compares total group performances on the Otis Lennon Test of Mental Ability. Once again it may be seen that pre-post gains in I.Q. points favor the experimental group but not at a statistical significant level. Nevertheless, the results indicate that the Orff program may be an improvement over present practice with regard to the development of mental ability.

Differential gains in Stanford Achievement Tests grade scores for second graders are reported in Table XII. It is immediately apparent that in five of the six curricular areas, students in the experimental program progressed more rapidly than students not enrolled in the program. Progress on the part of experimental students was especially rapid in the word reading word study and vocabulary development area. Where progress far exceeded that of the control groups and all expectations with regard to the length of time students were exposed to the experimental program. It may be noted in this regard that students were initially relatively homogenious on the pre-test with a slight advantage to the control group in word reading and spelling areas. In view of the results, the Orff program quickly compensated for any initial disadvantage to students enrolled in the experimental program. Thus, with regard to achievement in academic areas, one is led to conclude that the Title III program is an improvement over current practice.

The same conclusion may be drawn from inspection of Table XIII, which reports differential gains on the Purdue-Psycho-Motor Survey. In all areas the advantage is to the experimental group. Differential imcrements reached statistical significant proportions in the category of form perception, body imageand in total score. Thus, one is led to conclude that in the development perceptual and motor ability the Orff program probably offers an advantage over current practice.

E. Conclusion:

Summarizing the results, Tables X through XIII one is led to conclude that the Title III program represents a significant improvement over current educational practice in the area. The measureed gains for progress of students enrolled in the Orff program were greater than those in the traditional program

on twelve of the thirteen variables used in the evaluation. These are indeed encouraging results and lend considerable support to the continuation of the program and to its expansion as an educational strategy in the upper peninsula.

Certain cautions, of course, must be pointed out which to some extent, mitigate the confidence one may have in attributing the results solely to the Orff Method as an educational strategy. What effect controlled variables such as the fact that teachers were engaged in an experiment, i.e., Hawthorne effect, cannot be ascertained. Repeated experiments of the type just concluded will increase the confidence in the Orff strategy. At this juncture, one may conclude, however, that the results are very encouraging.

The interested reader may wish to consult the appendix for additional analysis of gain scores by grade level.

Table 1

Pre-Post Tests of Basic Experiences Scores, Head Start Only
(pre Kindergarten Norms)

N=42

	Raw Scores	Percentile Kindergarten Norms	Stanines
Pre	13.95	59	5
Post	18.62	84	7
T	7.74**		

**Sig. .01 level

Table 2

Pre-Post Tests of Basic Experiences Scores, Kindergarten Only:
(Kindergarten Norms) N=73

	Raw Scores	Percentile	Stanines
Pre	18.56	56	5
Post	22.56	78	7
T	6.38**		

**Sig. .01 level

Table 3

Pre vs. Post Tests of Basic Experiences. Raw Scores and Percentiles.
(Kindergarten Norms) Total Pre-school. N=110

	Raw Scores	Percentile	Stanines
Pre	17.01	48	5
Post	21.24	72	6
T.	7.11**		

**Sig. .01 level

Table 4

Pre-Post Otis-Lennon, Mental Ages and Deviation IQ's Grades 1&2 Combined N=107

	M.A.	Deviation IQ
Pre	6.97	103.9
Post	7.77	106.1
T	-4.72**	-1.21 (NS)

** Sig.> .01 level

Table 5

Pre Post Otis-Lennon Mental Ages and Deviation IQ's, Grades 1&2

	M.A.		I.Q.	
	Gr. 1 (45)	Gr. 2 (62)	Gr. 1	Gr. 2
Pre	6.53	7.29	106.3	102.2
Post	7.00	8.32	104.6	107.1
T.	1.91	5.28**	.56	2.22*

* Sig.> .05 level ** Sig.> .01 level

Table 6

Pre-Post Stanford Achievement Test Scores Grade 2, N=62, DF 122

	Vocabulary	para. meaning	Spelling	word study	word reading	writing
Pre	2.17	2.24	2.43	2.26	2.74	2.35
Post	2.66	2.71	2.96	2.90	3.31	2.78
T	4.27**	3.10**	3.11**	5.81**	2.39*	3.58**

*Sig.> .05 level ** Sig.> .01 level

Table 7

Pre-Post Purdue Psycho-Motor Survey Scores-Preschool Only N=98

	Tot.	Balance & Posture	Body Image	Percept-Motor Match	Form percept
Pre	33.90	10.83	1.19	9.94	4.14
Post	40.43	11.79	1.39	10.64	4.93
T.	6.22**	3.28**	5.16**	1.89(NS)	2.80**

** Sig.$\leq$.01 level

Table 8

Pre-Post Purdue Psycho-Motor Survey Scores, Grades 1&2 only, N=88

	Tot.	Balance & Posture	Body Image	Percept-Motor Match	Form percept
Pre	42.31	12.51	1.44	10.88	4.56
Post	43.58	12.67	1.44	11.48	5.04
T	1.56 (NS)	.52(NS)	.05(NS)	1.67(NS)	2.48*

* Sig.$>$.05 level

Table 9

Pre-Post Purdue Psycho-Motor Survey Total Experimental Group -N=183

	Tot.	Balance & Posture	Body Image	Percept-Motor Match	Form Percept
Pre	37.88	11.64	13.10	10.39	4.42
Post	41.92	12.21	14.20	11.04	5.00
T.	5.41**	2.59**	3.61**	2.50*	3.72**

*Sig.$>$.05 level **Sig.$>$.01 level

Table 10

Experimental vs. Control TOBE Raw gain Scores. Preschool & Kindergarten N=108

	Mean gain	SD
Experimental	4.82	3.52
Control	3.34	3.04
T	2.27*	
Prob.	.025	

Table 11

Experimental vs. control group-Otis-Lennon Deviation I.Q. point and Raw Score gains Total group n=107

	Dev. I.Q.	Raw Score
Experimental	2.38	7.00
Contol	1.96	6.95
T	.22	.04
Prob	.82	.96

Table 12

Experimental vs. Control Stanford Achievement Test Gain Scores in Grade Scores Total Group.

	Vocabulary	Para. meaning	Spelling	word study	Word Reading	Writing
ber.	.67	.61	.44	.71	1.02	.42
ntrol	.24	.29	.64	.56	.02	.42
	4.02	2.11	-1.12	1.23	3.84	.01
ob	.001	.039	2.65	.225	.001	.980

Table 13

Experimental vs. Control groups Purdue Psycho-Motor Survey, gain scores. Total group.

	Total	Balance	Body Image	Percept Motor Match	Form Perception
perimental	5.50	.70	.16	.67	.98
ntrol	2.68	.45	.06	.64	.31
	2.61	.70	1.82	.09	2.21
ob	.01	.49	.07	.92	.03

TENTATIVE TEST PLAN
FOR PROGRAM EVALUATION

First Year 1971-72

A. Orientation: September 24, 1971

B. Testing Program:

1. Cognitive Development:

Variable	Test	Population	Dates	
			Pre	Post
a. Concept Formation	TOBE, FM.K	all preschool and kindergarten + 60 controls	Oct.	May, 197
b. I.Q.	Otis-Lennon Elem. I	all grades 1-3 + 60-100 Controls	Oct. (FM.J.)	May, 197 (FM.K)
c. Achievement	Stanford Achievement	all grades 1-3 + 60-100 controls	Oct.	May

2. Psycho-Motor Development:

Variable	Test	Population	Dates	
			Pre	Post
a. Perceptual-motor development	Purdue	all participants + 60 - 100 controls	Oct.	May
b. Music + Rhythms	?	all participants + 60-100 controls	None	May

3. Social Development:

Variable	Test	Population	Dates	
			Pre	Ppst
a. Social Development index	TMR	all participants (controls optional)	Dec.	May

b. Reactive Data:

In addition to objective tests, reactive data will be obtained from teachers, parents and children near the close of each school year using survey instruments especially constructed for this purpose.

c. Analysis of Input (Optional):

Observers may be used to obtain data concerned with such salient variables as teacher strategies, classroom organization, pupil autonomy, etc. employing a structured rating instrument.

TEACHER INTERVIEW GUIDE

The intent of the interview is to obtain genuine disclosure of opinion. Outline is suggestive, not mandatory.

A. Has there been any observable change in your teaching behaviors as a result of your participation in the project? That is, what would an observer in your room notice that you are doing differently?

Suggestions: (Circle those which apply.)

a. physical classroom arrangements
b. interaction and control patterns with students
c. physical contact with students
d. noise levels
e. student independence and freedom
f. teachers verbal behavior
g. student movement
h. teaching strategies

B. If there have been changes in your behavior, to what factors do you attribute them? In other words, how did the changes come about? How important were each of these factors?

Suggestions and Rating scale: (Circle and rate those which apply.)

1 = very important, 2 = , 3 =, 4 =, 5 = not very important

a. first experiences ___
b. colleagues suggestions ___
c. visits to other programs ___
d. expectation of administrator ___
e. workshops (in-service) ___
f. pre-service training ___
g. consultant visitations ___
h. visiting teachers ___
i. resource materials ___

(The intent is to identify program factors which were influential.)

C. What elements or features of the project stand out in your mind as most helpful?

What elements do you believe were least helpful? Why?

a. how can the project be improved?

b. What features should be retained for the regular programs?

D. Do you believe the program benefits children in any particular way?

a. early exposure
b. creativity
c. independence and freedom
d. own rate
e. confidence
f. maximum advancement
g. good attitudes toward school

E. Would you prefer to work in this program or a more traditional program?

PARENT OPINIONS

The following questionnaire is designed to provide the Performing Arts Project staff (Orff Program) with important information about how parents feel about some of the main goals of the program. As parents, your responses to the items of this questionnaire would be most helpful. Please give your general impressions about the program whether you have one child or more involved.

My child(ren) attend(s):

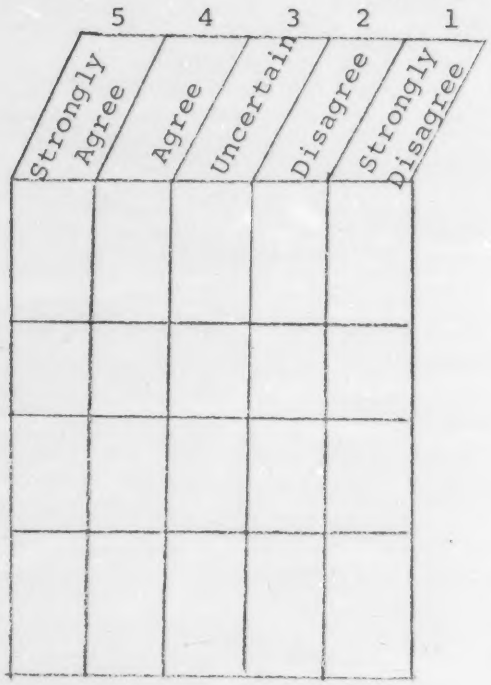
☐ Pre-school program (Preschool)

☐ Primary program (Grades 1-3)

Read each item carefully and then respond to it on the basis of the 5 point scale provided. For example, if you strongly agree with a statement, check 5 "Strongly Agree". If you are uncertain about a particular item, check 3 "Uncertain". On the other hand, if you strongly disagree with an item check 1 "Strongly Disagree".

5 = Strongly Agree
4 = Agree
3 = Uncertain
2 = Disagree
1 = Strongly Disagree

	5 Strongly Agree	4 Agree	3 Uncertain	2 Disagree	1 Strongly Disagree
1. As a result of the Orff Program I became more aware of my child's school activities.					
2. The school people from the Program helped me to better understand my child's emotional and social development.					
3. The Orff program staff was helpful in identifying children's learning patterns.					
4. The Orff program provided a wider range of learning experiences than had been provided in the past.					
5. The Orff program helped my child.					
6. My child has received more individual attention from teachers, teacher aides and other adults in the Orff Program.					
7. The Orff program has provided my child with increased individual learning experiences.					
8. My child's participation has resulted in a greater enthusiasm and liking for school.					
9. In the past year my child has had many nice things to say about school.					
10. Programs similar to the Orff program should be part of most elementary schools.					
11. The Orff program staff helped me in understanding what the project was supposed to do for my child.					



12. The use of special Orff teachers was a good thing since it allowed the classroom teacher to spend more time with my child.

13. My child liked and said nice things about the teachers.

14. The Orff program has been beneficial and should be operated on a permanent basis.

15. Despite not having formal report cards, I have received adequate information about my child's progress.

16. In what specific ways have you or your children benefited from the Orff program? Were the benefits any different than you would have received from the regular elementary school program? (Your frank comments and opinions would be greatly appreciated.)

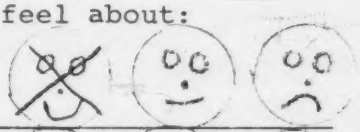
COMMENTS: (use other side if necessary.)

SMILING FACE

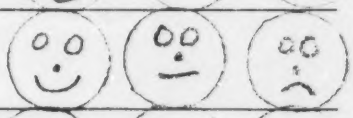
School_____ Student_____

Grade _____ Date_____

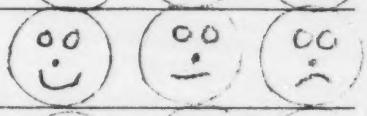
Put an X on the face that tells how you feel about:



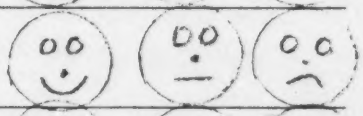
Sample Christmas_____



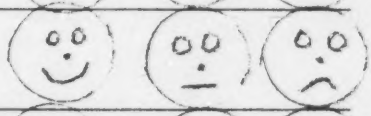
1. Coming to this school_____



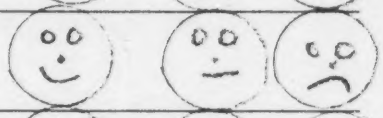
2. What you do at this school_____



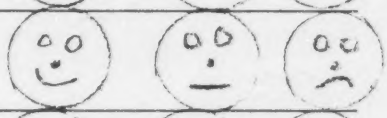
3. My music class_____



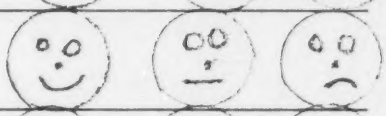
4. Myself in music class_____



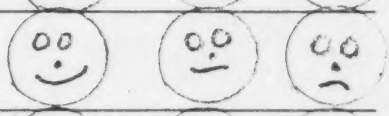
5. Reading at school_____



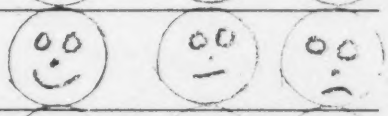
6. My friends at school_____



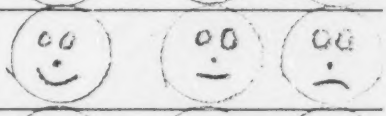
7. My music teacher_____



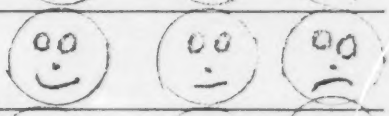
8. Arithmetic at school_____



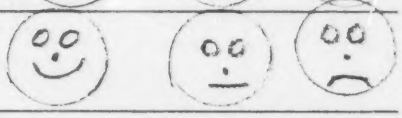
9. Myself as a pupil_____



10. Writing_____

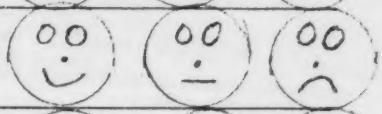


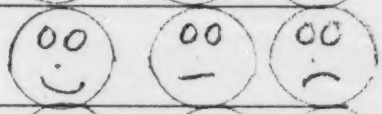
11. Gym_____

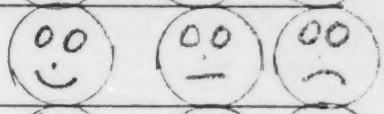


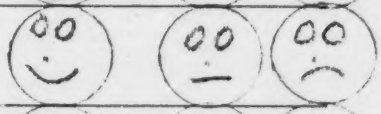
12. Sitting still_____

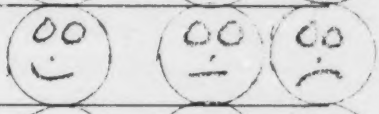
13. Art

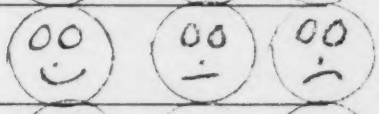
14. Movies at school 

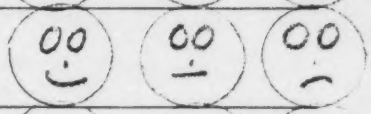
15. Getting to choose what I do 

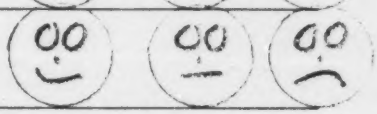
16. Moving around alot 

17. Kids who break rules 

18. How much I have learned this year 

19. Being at this school next year 

20. Myself last year 

21. Myself now 

michigan council for the arts

25 East Jefferson Avenue Detroit, Michigan 48214 Phone (313) 222-1090

SPECIAL PROJECTS PROGRAM

PROPOSAL FORM

NOTE: 1. Please type or print
2. Provide information requested in first five sections. Incomplete applications will be returned.
3. Return three (3) copies of this proposal to the Council address as above.

I. GENERAL INFORMATION

Date: June 8, 1972

PROJECT TITLE: KEWEENAW PENINSULA COMMUNITY ARTS PROGRAM

Name of applicant organization Copper Ctry Intermed. Schl.Dist.-Calumet Theatre-Mich Tech

Permanent mailing address 302 Front Street Hancock, Michigan 49930

Chief administrative officer Mrs. Katherine Heideman Phone (906) 482-4250 (zip)

Project Director Mr. Paul Kimball Phone same

II. PROJECT DESCRIPTION

A. Give detailed description of your project. Identify major goals of project, and include proposed method of program implementation. Provide additional sheets listing any information which will be helpful in learning about the project.

rovide cultural opportunity to the Keweenaw Peninsula
1. Develop Community theatre - with children's drama activities.
2. Develop Keweenaw Symphony - with children's Suzuki string classes.
3. Present complete adult cultural calendar of events with workshops, seminars demonstrations for students

B. Estimated number of persons to be served by this project 20,000

C. Inclusive date(s) during which this project will be in effect Sept. 1, 1972 to Sept. 1, 1973

D. Main location where project will operate Calumet Theatre

III. TOTAL ITEMIZED BUDGET

Estimated budget for proposed project. (Itemize all anticipated costs).

(See other side of page)

Total Cost of Proposed Project $ 50,000.00

IV. SOURCES OF FUNDS AND OTHER SUPPORT

What portion of the total cost will be supplied by the applicant organization or secured from sources other than the Arts Council? List all anticipated sources of funds, and include estimate amount of each; i.e., contributions from individuals, corporations, foundations, or other governmental agencies; admission revenues, program advertising, etc. (In some cases, in-kind resources such as academic instruction, office space, performance or exhibit facilities, and time and materials voluntarily contributed may be classified as matching funds.)

(See other side of page)

Total funds available to applicant $ 32,500.00

Value of in-kind contributions, if any $ 10,000.00

Total funds & in-kind available to applicant $ 42,500.00

V. FINANCIAL SUPPORT REQUESTED

Amount of grant requested from Michigan Arts Council: $ 7,500.00

Signatures:

Chief Administrative Officer

Project Director

NOTE: Submission of this application signifies intention of compliance with Title VI of the Civil Rights Act of 1964 (PL 88-352) and with labor standards under Section 5 (j) of The National Foundation on the Arts and Humanities Act of 1965 (PL 89-209).

VI. (For office use only) Acknowledgment: Date

Coordinator assigned Date

Committee review: Action Date

Council Review: Action Date Account $

10/70

UPPER GREAT LAKES REGIONAL COMMISSION

APPLICATION FOR SUPPLEMENTAL GRANT-IN-AID

1. **Name, legal address and telephone number of applicant:**

   Copper Country Intermediate School District
   302 Front Street
   Hancock, Michigan 49930
   Telephone 482-4250

2. **Official name and brief description of project to be funded:**
   Historic preservation and restoration with which vocational, technical education, distributive and tourist oriented services, cultural (theater) arts training, and recreation services, development will be associated.

3. **Name of basic Federal grant applied for:**
   Historic Preservation Program, National Park Service, Department of Interior.

4. **Name and address of office where Federal application filed:**
   Office of Planning Services, Department of Natural Resources.

5. **Date application filed with basic Federal grant agency:**

   March 14, 1972

6. **Federal project number (if assigned):**
   Not assigned as yet.

7.

Funding	Amount	Percentage of Eligible Cost
Basic Federal Grant-in-Aid	9000.00	9.1%
U.G.L.R.C. Supplemental Grant Applied For	30000.00	30.2%
* Other Sources of Funding (identify) Local -Mich. Recreational bonds	60000.00	60.6%
Bonds (G.O., Revenue)	-	
Cash	-	
Total Eligible Cost	99000.00	100%
Estimated Proj Costs Not Eligible for Funding	-	xxxx
Total Project Cost	99000.00	xxxx

12/5/68 * This sum is available through the Village of Calumet

8. Briefly explain anticipated effect of completed project on economic activity and employment of the area in terms of (a) improving the opportunities for successful establishment or expansion of industrial or commercial plants or facilities, (b) otherwise assisting in the creation of additional long-term employment opportunities for each area, or (c) primarily benefiting the long-term unemployed and low-income families, or otherwise substantially furthering the objectives of the Economic Opportunity Act of 1964. (Attach separate sheet.)

SEE ATTACHMENT A

9. Explain relationship in terms of planned development. (Attach separate sheet.)

SEE ATTACHMENT B

10. How will this project contribute to the economic development of the Upper Great Lakes Region? (Attach separate sheet.)

SEE ATTACHMENT C

11. Explain briefly why the full amount of the local "matching share" for funding this project is not available and what effort has been made to raise it. Identify all financial resources that legally could be utilized to finance the project and state why these financial resources are not being used. (Attach separate sheet.)

SEE ATTACHMENT D

12. Will this project involve user charges or generate other revenues in excess of those which will amortize the local share of the initial costs and provide for its successful operation and maintenance (including depreciation)? Yes_____ No_x_. (If "Yes", explain.)

13. Attach duly executed Form EDA-501, "Certificate of Non-Relocation."

SEE ATTACHMENT E

14. Attach duly executed Form EDA-503A, "Assurance of Compliance with Department of Commerce Regulations Under Title VI of the Civil Rights Act of 1964." (This is required even if a similar certification has been made to the basic grant agency.)

SEE ATTACHMENT F

15. The applicant will be required to comply with the provisions of the Davis-Bacon Act, as amended (40 U.S.C., 276a through 276a-5 in particular). Such provisions include the payment of prevailing wage rates, as determined by the Secretary of Labor, to laborers and mechanics employed by contractors and subcontractors.

16. Attach letter from appropriate unit or units of local government authorities in whose territory the project is located, reviewing and commenting on this project. (If applicant itself is a unit of general local government, no such letter is required.)

NOT APPLICABLE

17. Will this project include facilities for the generation, transmission or distribution of electric energy or the production or transmission of gas? Yes_____ No__x__. (If "Yes", explain.)

18. Does this project include any public service or development facility which will compete with an existing privately-owned public utility rendering a service to the public at rates or charges subject to regulation by a State or Federal regulatory body? Yes_____ No__x__. (If "Yes", explain.)

19. If the project includes sewer or other waste disposal facilities, a certification of the adequacy of treatment of such wastes must be obtained from the Federal Water Pollution Control Administration and attached to this application.

NOT APPLICABLE

20. If the project is designed primarily and essentially for the benefit of one business enterprise, will it result in an increase in production of goods or services when there is not sufficient demand for such goods or services to employ the efficient capacity of existing competitive enterprises? Yes_____ No__x__. (If "Yes", explain.)

21. If the applicant is non-governmental, please certify the names and fees of any expediter of the application. (Attach separate sheet.)

22. Certification by applicant:

Applicant hereby certifies that all information contained above and in exhibits attached hereto is true and correct to its best knowledge and belief and is submitted for the purpose of obtaining financial assistance under the Public Works and Economic Development Act of 1965 for the project described above.

IN WITNESS WHEREOF, the applicant has caused this application to be duly executed in its name by its undersigned duly authorized officer, its official seal (if one has been adopted) to be hereto affixed, and attested by its proper officer on this 30 day of March, 19 72.

(SEAL)

Copper Country
Intermediate School District.
Exact Legal Corporate Name of Applicant

Attest:

Katherine G. Heideman
Signature of Attesting Officer

By [signature]
Signature of Authorized Officer

Superintendent
Title of Attesting Officer

Director Trustee
Title of Authorized Officer

(Mrs.) Katherine G. Heideman
Typewritten Name

James B. Boggio
Typewritten Name

ATTACHMENT A

8. a. The Copper Country Chamber of Commerce has stated that the Copper Country lacks the sufficient holding power that today's tourist has to expect. This project improves existing business and will aid in the expansion of business by offering a cultural and recreational service that will keep tourists in the area for a longer period of time.

b. This will assure stability to existing business that is related to the year-round out-door recreation industry.

c. In the past year in general theatre operation we have employed people from the ranks of low income and long time unemployed. We are cooperating with the Michigan Employment Security Commission in some of the following programs: Emergency Employment Acts
Work Incentive Program
Concentrated Employment Program
When grant monies are received we will continue to cooperate with the Michigan Employment Security Commission to obtain their people. After completion of the project, jobs will be available and we will try whenever possible to fill these with Michigan Employment Security Commission recommendations.

ATTACHMENT B

9. The Copper Country Intermediate School District has involved itself in this project upon the request of many agencies. For the past year an executive director has worked with the community in trying to develop this project. The agencies that have been involved, some in a large way, and others at this time in a small way, are as follows: Michigan Employment Security Commission
Community Action Agency
Office of Economic Development
Universal Oil Products Company
Copper Country Industrial Council
Houghton County Planning Commission
Copper Country Chamber of Commerce
Copper Country Historical Commission
Calumet-Laurium-Keweenaw Chamber of Commerce
Calumet Township
Governor Milliken's Office
Michigan Council for the Arts
Michigan Department of Education-Title III
Michigan State Historical Commission
Western Upper Peninsula Development District
Quincy Hoist Corporation
Suomi College
Michigan Technological University

ATTACHMENT B continued

Letters of endorsement can and will be obtained from these agencies if you request them. This project has the complete support of this area.

ATTACHMENT C

10. This project will be an additional tourist attraction for the Upper Great Lakes region. With just limited publicity which we received when we designated a historical landmark last summer, a large numer of people have requested tours of the Theatre. With adequate publicity and the reopening of summer theatre, we feel this theatre will become a prominent attraction for anyone in the Upper Peninsula. The preservation and restoration of the Calumet Theatre fits into the overall plans that the largest land owner, Universal Oil, has for the area. The Universal Oil Products, in their long-range plans visualize Calumet as becoming Coppertown U. S. A.; they feel that the town can reach maximum potential by restoring and preserving the available buildings and sites. For more details on Universal Oil's proposal of land use, I suggest you contact Universal Oil Products Co.

ATTACHMENT D

11. As you know, with the closing of the Universal Oil Products--Calumet and Hecla Division (Mining) the only large employer in the Calumet area, money has become tight. Each year taxes go up; this creates a greater economic burden. The only agency that could sponsor a project of this nature finds themselves in a dilema to pay their own bills. The Calumet Village has been extremely cooperative with this project; however, they are not in any position to offer any financial assistance. The Calumet Public Schools are, for the first time since they opened, closing their books in the red. The County of Houghton and its Commissioners offer support to the project; however, they also are having trouble meeting their financial commitments. The Copper Country Intermediate School District, which encompasses four counties, has allocated time and effort toward this project. However, they themselves are dependent upon tax support and cannot use taxpayers' money for this type of project. We find that we must turn to outside sources to help an area that at one time made tremendous financial contributions to the state of Michigan.

ATTACHMENT E

UPPER GREAT LAKES REGIONAL COMMISSION

CERTIFICATE OF NON-RELOCATION BY APPLICANT

NOTE: The Public Works and Economic Development Act of 1965, as amended, prohibits the making of grants which will have the effect of assisting an employer in moving jobs from one area to another. An expansion of an existing business to a new location may be assisted if such an expansion will not cause unemployment in other areas where the business conducts operations, or will not enable contractors or subcontractors to undertake contracts or subcontracts heretofore performed elsewhere, the performance of which would result in an increase of unemployment at the previous location of such work. Execution of the following Certificate is necessary for the Federal Cochairman of the Upper Great Lakes Regional Commission to determine the eligibility of the proposed project in this regard.

CERTIFICATION

I hereby certify that this Public Works and Development Facility project is not undertaken for the purpose of serving an industrial and commercial enterprise which has relocated its operations into the area during the past twenty-four (24) months or for the purpose of assisting, soliciting or otherwise encouraging the relocation of an industrial or commercial enterprise, and that the applicant is not presently negotiating with an industrial or commercial enterprise which intends to relocate or to curtail its operations in another location with the intention of utilizing the above-named facility when it is constructed. In the event that, after the date of execution of this Certificate and prior to final disbursement, an agreement is reached between the applicant and any industrial or commercial enterprise to use the Public Works and Development Facility, the applicant will notify the Federal Cochairman of the Upper Great Lakes Regional Commission of such agreement and submit the names of the enterprises involved.

March 29, 1972
Date

James B. Grigio
Signature and Title

For Copper Country Intermediate School District
Applicant

NOTE: 18 U.S.C. 1001 provides that "Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined not more than $10,000 or imprisoned not more than five years, or both." June 25, 1948, c. 645, 62 Stat. 749.

ATTACHMENT F

Upper Great Lakes Regional Commission ASSURANCES OF COMPLIANCE WITH THE DEPARTMENT OF COMMERCE REGULATIONS UNDER TITLE VI OF THE CIVIL RIGHTS ACT OF 1964	NAME OF PROJECT
	CITY AND STATE
	PROJECT NO.

Copper Country Intermediate School District (hereinafter called the "Recipient") hereby agrees,
Name of Recipient

assures, and undertakes that as a condition to the extention to it of Federal financial assistance for programs authorized under the Public Works and Economic Development Act of 1965, as amended, (hereinafter called the "Act"), said programs will be conducted in compliance with Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. 2000d-2000d-4) and the requirements imposed by or pursuant to the Regulations of the Department of Commerce issued thereunder (Title 15, Code of Federal Regulations, Subtitle A, part 8), a copy of which is attached, to the end that no person in the United States shall on the ground of race, color or national origin be excluded from participation in, be denied the benefits of, or be otherwise subject to discrimination under any of said programs. The Recipient hereby further agrees and gives assurance that it will immediately take any measures necessary to effectuate this agreement.

In accord with and without limiting the above, the Recipient agrees:

1. That the aforesaid prohibited discrimination includes discrimination:

   (a) in the planning, organization, administration, operation, and fulfillment of the objectives, or said programs or incident to them;

   (b) in the creation, use, and administration of any body or organization to plan, advise, or otherwise assist the Recipient in said programs;

   (c) in the construction, acquisition, management, use, leasing or disposition of any property or facilities involved in said programs;

   (d) in the preparation, dissemination, application and use of any type of technical assistance, such as studies evaluating the needs and developing potential for economic growth, rendered under said programs;

   (e) in the letting of contracts of any type to persons under or incidental to said programs;

   (f) in the employment practices of the Recipient or of the public or private organizations or institutions of any kind which may participate in said programs as recipients of Federal financial assistance or as contractors or otherwise or which are the substantial and direct beneficiaries of said programs;

   (g) in the operation of any businesses, institutions, public works, facilities or other organizations which are recipients of Federal financial assistance or which participate in or are the substantial and direct beneficiaries of said programs, including the services, benefits or accommodations offered to the public or the production, preparation, transportation and distribution of goods connected with such operations.

2. That it will not engage in the discrimination described hereinabove in paragraph 1, or in any prohibited act or course of conduct with respect thereto as described in Sections 8.4 and 8.5(b)(6) of the Department's Regulations.

3. That it recognizes its obligations to comply with Title VI and the Department's Regulations extends not only to its own activities but also, in accord with Section 8.5(b)(4) of said Regulations, to assure that the public and private organizations and institutions which participate in the Recipient's programs as recipients, contractors (including lessees), substantial and direct beneficiaries, or in any other respect, will also comply with Title VI and the Regulations with respect to said programs. To that end, the Recipient agrees:

   (a) That it will obtain as part of its contractual or other arrangements with such parties, or will arrange with others with whom it has direct dealings to obtain in turn from such parties, as a minimum form of assurance, their agreement in writing that such parties, their assignees and successors, "during and in connection with their contract, operations, receipt of benefits, or other participation under or relating to programs receiving Federal financial assistance, (i) will comply with the applicable provisions of the Regulations of the United States Department of Commerce (Title 15, Code of Federal Regulations, Subtitle A, Part 8) issued pursuant to Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d-2000d-4), and will not thereby discriminate against any person (as defined in said Regulations) on the ground of race, color or national origin in their employment practices, in any of their contractual arrangements, in all services, benefits or accommodations which they offer to the public, and in any of their other business operations; (ii) will provide the information required by or pursuant to said Regulations to ascertain compliance with said Regulations and these assurances; (iii) understand that their non-compliance with the nondiscrimination requirements of said Regulations and these assurances shall constitute a breach of their contractual arrangements with the Recipient or other parties thereto whether said arrangements may be cancelled, terminated or suspended in whole or in part or may be subject to enforcement otherwise by appropriate legal proceedings";

   (b) that it will secure the compliance, and assist and cooperate actively with the Department of Commerce in obtaining and enforcing the compliance of said contracting parties with the nondiscrimination required by the Act and Regulations and their respective contractual arrangements, and in the event the Recipient becomes involved in litigation with a non-complying party, it may request the above captioned Commission and the Department of Commerce to enter into such litigation to protect the interests of the United States in the enforcement of these obligations; and

   (c) that it will obtain and furnish to the said Commission and the Department of Commerce such information as it may require for the supervision or securing of such compliance.

4. That when the Recipient or other participant or substantial and direct beneficiary under the programs, is an institution referred to in Section 8.5(b)(9) of the Department's Regulations, the provisions of that Section shall be applicable.

5. That when the Recipient or other participant or substantial and direct beneficiary is subject to the requirements of an affirmative action program with respect to employment, it will establish and comply with said program.

6. That where the said Commission's or related financial assistance provides or is used for: (a) real property or structures thereon, the assurances shall be in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits (b) personal property, the assurances shall be in effect for as long as the recipient, participant or substantial beneficiary retains ownership, control or possession of the property; and (c) any other type or form of assistance, the assurances shall be in effect for the duration of the period during which Federal financial assistance is extended to the programs.

7. That any failure to comply with assurances of nondiscrimination shall constitute a breach of the agreement pursuant to which they were furnished, that in such case of breach, further disbursements may be refused under said agreement, or any other enforcement or remedial actions or remedies provided in the Regulations or otherwise by law may be taken, and that the enforcement of one or more rights shall not be prejudicial to the Commission's or the Federal Government's right to obtain judicial relief and/or take any other action available under the Act, Regulations, agreements, or the law.

8. That these assurances shall be binding upon the Recipient, and any supplementary ones binding upon participants and substantial and direct beneficiaries, their officers, employees and agents, grantees, assignees, transferees, lessees, and successors in interest.

The Recipient acknowledges that it has received and read the Department's Regulations.

These assurances are made and accepted this thirtieth day of March, 19 72,

in Hancock, Michigan.

Copper Country
Intermediate School District
(Recipient)

By: James B. Boggio

I, Katherine G. Heideman, as Secretary of ,

a corporation organized and existing by virtue of the laws of the State of ;

or as (Authorized State Official) of the State of ;

or as Superintendent (Authorized Official) of the Copper Country Intermediate School Distri (Political subdivision, or agency, or institution)

in the State of Michigan; do hereby certify that the foregoing officer who executed these assurances has full authority to bind the Recipient. In witness thereof I set my hand and affix this seal on this thirtieth day of March, 19 72.

Katherine G Heideman
(Secretary or Other Official)

RURAL MICHIGAN performing ARTS project

The Copper Country Intermediate School District, with grants from the Michigan Department of Education and the Michigan Council for the Arts, has launched a broad based new approach to education at the pre-school, kindergarten, first, second and third grade levels. Mu[illegible] concern is being felt by parents and educators alike over the growing tendency of young people to spend too much time as passive observers of life on the 21 inch tube. The Rural Michigan Performing Arts Project is aimed directly at making pre-school and primary school children performers and active participants in the life of their schools and communities.

The heart of the program involves the Orff method, which enables young children, through music and the senses, to learn fundamental speech patterns as well as mathematical concepts. The system developed by Carl

Orff, the famous musician and composer, which begins with the use of percussion instruments, clapping to simple melodies, and play-acting, teaches children basic academic skills in a fun-filled, relaxed atmosphere.

Learning ability, attention span, and innate musical ability are measurably increased by this method. Performing arts skills are taught, not as a separate subject, but as an integral part of the general educational program. To do this and spread the advantages of the Orff method throughout the entire pre-school and primary school system, scores of classroom teachers attend regular instruction sessions taught by Orff specialists. These courses, which the classroom teacher takes for credit, trains the

class room teacher, with follow up help by the specialist, to make the Orff method the primary vehicle for raising the effectiveness of imparting basic academic skills to students throughout the important first three or four years of his early education.

The Performing Arts Project has currently selected four pilot schools to introduce a new method of teaching pre-school and primary school children to learn to play the violin through the Suzuki method of music instruction. This method, developed by Dr. Shinichi Suzuki, is based on the fact that all children have musical ability and can be taught to play the violin just as they are taught to speak their native language. An ear for music is a human aptitude which can be developed by listening and, according to Suzuki, musicality is not a gift, but an achievement.

The project employs a violin teacher who studied under Suzuki in Japan and she will provide private violin instruction to sixty primary school children. The key to the success of this facet of the project involves the parent, who attends each lesson with the student and becomes the child's teacher at home.

While the Orff and Suzuki methods of instruction make up the heart of the performing arts project, the historic Calumet Theater in Calumet, Michigan, will become the focal center of the program. The restoration of this beautiful old theater is a most important part of the project.

The underlying philosophy of the entire performing arts project is based on twenty years of study and experimentation by Dr. Herbert Zipper, director of the performing arts program, University of Southern California, who

learned that all children respond to music, and when all aspects of musical performance are incorporated into the regular school program, all learning, from the alphabet to mathematics, is enhanced, and the whole school day is made more pleasurable for both child and teacher.

The theater, Zipper says, was once the focal point of communal life, and the center of all cultural activities. Inasmuch as the total thrust of the Performing Arts Project is aimed at raising the entire concept of community education, the Calumet Theater will become the center for bringing together all the various facets of the program, and involve the entire community in raising the quality of life of all of its citizens. Through the establishment of the Community Council for the Arts to guide the theater program, professonal theater will be brought to the community. But, more importantly, with the use of professional directors, local acting, directing and writing talent will be developed in the community to provide locally written and produced performances. Development of local musical and dramatic talent through the theater program will make this historic theater a living thing to enhance communal life and bring people together to respond to the art forum the theater can provide. At a time when family and community life is splintered by the T.V. screen in every home, this program can enable larger segments of the community to once again become active participants in the social and cultural life of their area.

For further information contact The Copper Country Intermediate School District, 302 Front Street, Hancock, Michigan, telephone 482-4250.

USOE
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AUG 20 1973
E & D Centers Program

MICHIGAN DEPARTMENT OF EDUCATION

EXPERIMENTAL AND DEMONSTRATION CENTERS PROGRAM

Lansing, Michigan 48902

END OF BUDGET PERIOD REPORT
FORMS AND INSTRUCTIONS

6-73

MICHIGAN DEPARTMENT OF EDUCATION

EXPERIMENTAL AND DEMONSTRATION CENTERS PROGRAM

Lansing, Michigan 48902

TABLE OF CONTENTS

I. STATISTICAL DATA SECTION

II. FINANCIAL DATA SECTION

III. EVALUATION DATA SECTION

MICHIGAN DEPARTMENT OF EDUCATION

EXPERIMENTAL AND DEMONSTRATION CENTERS PROGRAM

Lansing, Michigan 48902

PART I

STATISTICAL DATA

GE-4392
6/73

Michigan Department of Education
General Education Services
EXPERIMENTAL AND DEMONSTRATION CENTERS PROGRAM
Box 420 Lansing, Michigan 48902

RECEIVED
AUG 20 1973
E & D Centers

PART I - STATISTICAL DATA

THIS SPACE FOR STATE USE ONLY

BUDGET PERIOD	PROJECT PERIOD	PROJECT NUMBER	No. of LEA's Served
Beginning Date Ending Date	☐ 1st ☐ 2nd ☐ 3rd		

MAILING INSTRUCTIONS: Return the ORIGINAL (BLUE) copy and four WHITE copies not later than JULY 31, 1973 to the STATE address indicated above. Retain ONE copy.

SECTION A - PROJECT INFORMATION

EDUCATIONAL AGENCY	Legal Name	District Code No.	Telephone – Area Code/Local No.
	Copper Country Intermediate School District	31 000	906 482-4250
	Address: 302 Front Street	City: Hancock	County: Houghton	Zip Code: 49930

REASON FOR SUBMISSION OF THIS FORM (Check One Only)

A. ☐ Application for Initial Grant (First Budget Period)
B. ☐ Application for Second Budget Period
C. ☐ Application for Third Budget Period
D. ☒ End of Budget Period Report

IN ALL CASES EXCEPT THE INITIAL GRANT, GIVE THE MICHIGAN DEPARTMENT OF EDUCATION ASSIGNED PROJECT NUMBER. 0352-0572-2/3

EMPHASIS OF PROGRAM (Check One Only) ☐ Experimental ☒ Demonstration

TYPE OF ACTIVITY (Check One Only)

A. ☐ Planning of Program
B. ☒ Operation of Program

PROJECT TITLE (10 Words or Less) CHILD DEVELOPMENT THROUGH THE ARTS

PROJECT FOCUS (Check One Only)

A. ☒ General Education
B. ☐ Handicapped
C. ☐ Guidance and Counseling

TITLE III BUDGET SUMMARY FOR PROJECT — STATE USE ONLY

	BEGINNING DATE Month	BEGINNING DATE Year	ENDING DATE Month	ENDING DATE Year	FUNDS REQUESTED	NEGOTIATED BUDGET
A. Application for Initial Grant (First Budget Period)						
B. Application for Second Budget Period						
C. Application for Third Budget Period						
D. Total Title III Funds						
E. End of Budget Report (Final)	July	72	June	73		

PROJECT DIRECTOR OR CONTACT PERSON

Name	Title	Address (Number, Street, City, State, Zip Code)	Phone Number	Area Code
Paul Kimball	Assistant Superintendent	302 Front Street Hancock, Mich. 49930	482-4250	906

Name of Person Authorized to Receive Grant & Title (Please Type)	Address (Number, Street, City, State, Zip Code)
Mrs. Katherine G. Heideman	302 Front St., Hancock, Mich. 49930

Signature of Person Authorized to Receive Grant	Phone Number	Area Code
	482-4250	906

GE 4397
(Page 2)

CTION B- PARTICIPANTS

NO OF PARTICIPANTS

	SCHOOLS	STUDENTS			TEACHERS		PARENT		OTHER	
		Elem.	Sec.	Adult	Elem.	Sec.	Prof.	Non-Prof.	Prof.	Non-Prof.
DIRECT PARTICIPATION	*PUBLIC	620			40			5	10	9
	*NON PUBLIC	63			4			2		
INDIRECT PARTICIPATION	*PUBLIC	Thousands (See below)								
	*NON PUBLIC									

*Refer to Instructions.

TOTAL NUMBER AND PERCENTAGE OF STUDENTS DIRECTLY SERVED

	WHITE	NEGRO	ORIENTAL	LATIN AMERICAN	AMERICAN INDIAN	TOTAL
Number	682				1	683
Percentage	99.86				.0014	100%

NUMBER AND PERCENTAGE OF RURAL/URBAN DISTRIBUTION OF STUDENTS BEING DIRECTLY SERVED BY PROJECTS

	RURAL [1]		STANDARD METROPOLITAN AREA [2]		OTHER URBAN [3]		TOTAL PARTICIPATION [4]
	FARM	NON-FARM	LOW-SOCIO-ECONOMIC	OTHER	LOW-SOCIO-ECON	OTHER	
a. Number of Participants being Directly Served	102	581					683
b. Percentage being Directly Served	.15	.85					100%

RURAL means an outlying area of less than 2,500 inhabitants.

STANDARD METROPOLITAN AREA-LOW-SOCIO-ECONOMIC AREA means an area with low-socio-economic level within a city of 50,000 inhabitants or more.

OTHER URBAN means areas with less than 50,000 inhabitants but more than 2,500 inhabitants; this category includes suburbs.

The total percent distribution must total 100%.

. Indirect Participation (Can't give a number for this)

Visits: Marquette New School (approx. 25-30 teachers and children)
Parents visits at schools
Innovations Fair in Marquette (booth and demonstrations)
Slide demonstration used by two of our teachers for media class project
Two violin programs
Childrens programs at Calumet Theatre for parents
Thousands attending plays at Calumet Theatre

(Indirect participation would be many thousand)

CTION C- APPLICANT SCHOOL DISTRICT INFORMATION

GENERAL INFORMATION

GENERAL INFORMATION	U.S. CONGRESSIONAL DISTRICT	MICHIGAN	
		Senate District	Rep. District
licant District	11th	38th	110th

DISTRICT AVERAGE PER PUPIL EXPENDITURE

	LOCAL	STATE	OTHER	TOTAL
BUDGETED FOR CURRENT FISCAL YEAR	Not available at this time.			
ACTUAL PRECEDING FISCAL YEAR 19 71-72	245	535	11	791
SECOND ACTUAL PRECEDING FISCAL YEAR 19 70-71	240	491	24	755

APPLICANT SCHOOL DISTRICT ENROLLMENT

		GRADES							ADULT	OTHER	TOTALS
		PRE-K	K	1	2	3	4-6	7-12			
ENROLLMENT OF APPLICANT SCHOOL DISTRICT	Public*	126	670	648	674	693	2162	4372	187		9532
	Non-Public**	0	0	39	40	49	127	49			304
PERSONS DIRECTLY SERVED BY PROJECTS LIVING IN APPLICANT DISTRICT	Public	55	124	95	117	96	23			110	620
	Non-Public	0	0	18	18	27					63

*DS-4061 DISTRICT SUMMARY: 1971 Fourth Friday Membership and Personnel Report
**DS-4325 Private & Parochial School Membership Report

CTION D- COOPERATING SCHOOL DISTRICT INFORMATION

COOPERATING SCHOOL DISTRICTS (PUBLIC AND NON-PUBLIC)

		GRADES							ADULT	OTHER	TOTALS
		PRE-K	K	1	2	3	4-6	7-12			
ENROLLMENT OF COOPERATING SCHOOL DISTRICTS	Public*	0	171	163	189	185	586	1136		149	2579
	Non-Public**	0	0	18	18	27	127	49			239
PERSONS DIRECTLY SERVED BY PROJECTS OTHER THAN THOSE APPLICANT DISTRICT	Public										
	Non-Public										

*DS-4061 DISTRICT SUMMARY: 1971 Fourth Friday Membership and Personnel Report
**DS-4325 Private & Parochial School Membership Report

COOPERATING SCHOOL DISTRICTS (PUBLIC AND NON-PUBLIC)

TOTAL NUMBER OF COOPERATING SCHOOL DISTRICT DIRECTLY SERVED	U.S. CONGRESSIONAL DISTRICTS REPRESENTED (LIST DISTRICT(S) NUMBER)	STATE MICHIGAN REPRESENTATION (LIST THE NUMBER(S))	
		Senate	Rep.
5	1 (No. 11)	38	110

AVERAGE PER PUPIL EXPENDITURE OF COOPERATING SCHOOL DISTRICTS

LEGAL NAME OF COOPERATING SCHOOL DISTRICT	AVERAGE PER PUPIL EXPENDITURE			
	Local	State	Other	TOTAL
Hancock Public Schools	231	536	3	770
Adams Township Schools	224	670	2	896
Calumet Township #2 School Dist.	215	546	20	781
Chassell Township Schools	242	581	.30	823.30
Lake Linden-Hubbell Public Schools	239	496	.36	735.36
Sacred Heart Central Grade School	not available			

ERTIFICATION: I certify that the information submitted on this report is true and correct to the best of my knowledge.

ate 8/16/73 Superintendent or Authorized Official Katherine G. Heideman (Signature)

Contact Person Paul Kimball Telephone 906 482-4250
Area Code/Local No.

Paul R Kimball

MICHIGAN DEPARTMENT OF EDUCATION

EXPERIMENTAL AND DEMONSTRATION CENTERS PROGRAM

Lansing, Michigan 48902

PART III

EVALUATION DATA

GE-4499
6/73

Michigan Department of Education
General Education Services
EXPERIMENTAL AND DEMONSTRATION PROGRAM
Box 420 Lansing, Michigan 48902

RT III – EXPERIMENTAL AND DEMONSTRATION PROJECT EVALUATION REPORT

UCATIONAL AGENCY	Legal Name of School District	District Code No.	Telephone – Area Code Local No.
	Copper Country Intermediate School District	31 000	906 842-4250
	Address 302 Front Street	City Hancock	Zip Code 49930

ILING INSTRUCTIONS: Return the ORIGINAL (BLUE) copy and four WHITE copies not later than JULY 31, 1973 to the STATE address indicated above. Retain ONE copy.

CTION A· COMMUNITY CHARACTERISTICS (Answer in terms of where the target population lives.)

What has been the average population trend during the last three years in your community? (Check One Only)

- [ ] a. Decreasing
- [X] b. Stable
- [ ] c. Increasing (1–5%)
- [ ] d. Increasing (6–10%)
- [ ] e. Increasing (more than 10%)

What has been the average unemployment rate during the last three years in your community? (Check One Only)

- [ ] a. 0–1%
- [ ] b. 2–5%
- [ ] c. 6–8%
- [ ] d. 9–11%
- [X] e. More than 11%

What is the average income level in your community? (Check One Only)

- [ ] a. 0–$5,000
- [X] b. $5,001–$7,500
- [ ] c. $7,501–$10,000
- [ ] d. $10,001–$15,000
- [ ] e. More than $15,000

What is the major occupation in your community? (Check One Only)

- [X] a. Small Business
- [ ] b. Light Industry
- [ ] c. Heavy Industry
- [ ] d. Professional
- [ ] e. Farming
- [X] f. Other (describe) Heavy population of state and federal employees

CTION B· SCHOOL CHARACTERISTICS

How many school buildings are there in the project?

a. Elementary	25
b. Secondary	9

The most recent millage request:

- [ ] a. Passed
- [X] b. Failed

Has the school district recently suffered financial cutbacks?

- [ ] a. Yes
- [X] b. No (not local but state)

CTION C: PROGRAM CHARACTERISTICS

The critical need which the project primarily focuses upon is: (Check One Only)

- [X] a. Basic Skills Development
- [X] b. Alternative Instructional and Organizational Patterns
- [ ] c. Career Development
- [ ] d. Social Action
- [ ] e. Special Education
- [X] f. Other (specify) Teaching strategies

Who conducted the assessment of the perceived needs?

- [X] a. District Staff
- [ ] b. Non-district Staff
- [ ] c. None

If you checked "a" or "b", Check ALL of the methods used in the assessment of the perceived needs.

- [X] a. Survey
- [X] b. Individual Opinion
- [X] c. Group Opinion
- [X] d. Other (specify) State Dept. of Education and the National Guild of Community Music Schools

The needs asses ment was based upon:

- [ ] a. Student Performance Objectives
- [X] b. Previously Identified Students Needs

If you checked " a", List the measurement devices used, or if you checked "b", list the previously identified student needs.

Is this program a modification of a previously existing program?

- [ ] a. Yes
- [X] b. No

Who was primarily responsible for developing the IDEA for the program? (Check One Only)

- [ ] a. Local Administration
- [X] b. ISD Administration
- [ ] c. Instructional Staff
- [ ] d. Students
- [ ] e. Community
- [ ] f. Commercial Firm
- [ ] g. University
- [X] h. Other (specify) Dr. Herbert Zipper, Exec. Director in cooperation with the National Guild of Community Music Schools and the Michigan Council for the Arts, Ray Scott, Exec. Dir.

Was the program faced with unusual social or economic conditions?

- [X] a. Yes
- [ ] b. No

If "YES", please list these conditions.

Lowest income area

Very conservative area both socially and culturally

ECTION D: PARTICIPANTS

The major target population in this project is: (Check One Only)

- [ ] a. Students
- [ ] b. Teachers
- [ ] c. Aides
- [ ] d. Administrators
- [ ] e. Parents
- [ ] f. Counselors
- [X] g. Other (specify) Teachers and students of preschool thru grade 4

If the major target population is students, then indicate the age range and average age of the students.

a. Age Range of Students

LOWEST AGE		HIGHEST AGE	
YEARS	MONTHS	YEARS	MONTHS

b. Average Age of Students

YEARS	MONTHS

3499
e 4)

Indicate in the appropriate boxes, the number of participants who were in the project when it started, and the number in the program as of the end of this year.

PARTICIPANTS	NUMBER OF PARTICIPANTS	
	Start of Program	End of Program
a. Students	1,014	683
b. Teachers	35	44
c. Aides	1	0
d. Administrators	15	13
e. Parents	6	100
f. Counselors	2	1
g. Project Staff (include Director)	6	6
h. Others		

If the major target population is students, then indicate the GRADE LEVEL SPAN represented in the program.

pre school - 4th gr.

The project focuses primarily on:

- [ ] a. Females
- [ ] b. Males
- [x] c. No focus by sex

What choice(s) best describes the participation of the target population? (Check Two if Appropriate)

- [x] a. Voluntary
- [x] b. Involuntary sample (non-random) (comparison groups)
- [ ] c. Random Selection
- [ ] d. Random Stratified Selection
- [ ] e. Total Population
- [ ] f. Other

Was the target population involved in any other special projects aimed at meeting similar critical needs?

- [ ] a. Yes
- [x] b. No

If "YES", list the projects.

SECTION E: MAJOR PROJECT GOALS

Restate the major goals from your first year application for the first year of the project. Indicate by placing an "X" in the appropriate box the goals that were achieved.

- [X] 1. To increase the overall learning process and achievement of children.
- [X] 2. To effect internal and external change in teachers' attitudes and behavior.
- [ ] 3. _____
- [ ] 4. _____
- [ ] 5. _____
- [ ] 6. _____

Are you reporting on all of the program performance objectives in that section of this report dealing with findings? (Check One Only)

- [ ] a. Yes
- [X] b. No

If "NO", please explain why you have deleted some of the objectives.

Performance objective for teachers not measurable until completion of third year of project

Complete this item for EACH learner performance objective. (Extra copies of this page are provided.)

a. State the performance objective.

Children enrolled in the ORFF Program will evidence cognitive achievement which exceeds that of students in the regular program

b. Give the number of learners for whom the above objective is applicable: 189

c. For the above performance objective provide: NOT APPLICABLE

(1) Number of learners who achieved the criterion for success at the beginning of this project year.	
(2) Number of learners who achieved 150% or more of the criterion for success by the end of this project year.	
(3) Number of learners who achieved 100% to 149% of the criterion for success by the end of this project year.	
(4) Number of learners who achieved 75% to 99% of the criterion for success by the end of this project year.	
(5) Number of learners who achieved 50% to 74% of the criterion for success by the end of this project year.	
(6) Number of learners who achieved 25% to 49% of the criterion for success by the end of this project year.	
(7) Number of learners who achieved 1% to 24% of the criterion for success by the end of this project year.	
(8) Number of learners who achieved 0% of the criterion for success, or regressed, by the end of this project year.	

Complete this item for EACH learner performance objective. (Extra copies of this page are provided.)

a. State the performance objective:

Children enrolled in the ORFF Program will evidence Psycho-motive development which exceeds that of students enrolled in the regular program.

b. Give the number of learners for whom the above objective is applicable: 189

c. For the above performance objective provide: NOT APPLICABLE

(1) Number of learners who achieved the criterion for success at the beginning of this project year.	
(2) Number of learners who achieved 150% or more of the criterion for success by the end of this project year.	
(3) Number of learners who achieved 100% to 149% of the criterion for success by the end of this project year.	
(4) Number of learners who achieved 75% to 99% of the criterion for success by the end of this project year.	
(5) Number of learners who achieved 50% to 74% of the criterion for success by the end of this project year.	
(6) Number of learners who achieved 25% to 49% of the criterion for success by the end of this project year.	
(7) Number of learners who achieved 1% to 24% of the criterion for success by the end of this project year.	
(8) Number of learners who achieved 0% of the criterion for success, or regressed, by the end of this project year.	

Complete this item for EACH learner performance objective. (Extra copies of this page are provided.)

a. State the performance objective:

At the completion of the project children in grades K through 4 will demonstrate positive attitude toward school when compared with the control group.

b. Give the number of learners for whom the above objective is applicable: 140

c. For the above performance objective provide: not applicable

(1) Number of learners who achieved the criterion for success at the beginning of this project year.	
(2) Number of learners who achieved 150% or more of the criterion for success by the end of this project year.	
(3) Number of learners who achieved 100% to 149% of the criterion for success by the end of this project year.	
(4) Number of learners who achieved 75% to 99% of the criterion for success by the end of this project year.	
(5) Number of learners who achieved 50% to 74% of the criterion for success by the end of this project year.	
(6) Number of learners who achieved 25% to 49% of the criterion for success by the end of this project year.	
(7) Number of learners who achieved 1% to 24% of the criterion for success by the end of this project year.	
(8) Number of learners who achieved 0% of the criterion for success, or regressed, by the end of this project year.	

ECTION F: DESIGN

Which of the following designs were used in the evaluation of this project? (Check All That Apply)

- [X] a. Pretest-Postest (Project group only)
- [X] b. Pretest-Postest (Project and comparison groups)
- [ ] c. Postest only (Project group only)
- [X] d. Postest only (Project and comparison groups)
- [ ] e. Other (describe) _____

What measures were applied to find out if the aims of the project were achieved? (Check All That Apply)

- [X] a. Questionnaire
- [X] b. Standardized Tests (group)
- [X] c. Teacher Made Tests
- [X] d. Observations (Teacher logs)
- [X] e. Diagnostic (Test of Basic Experiences)
- [ ] f. Unobtrusive Measures
- [ ] g. Other (describe) _____

If observations were made, were the observers specially trained?

- [ ] a. Yes
- [X] b. No

TION G: DATA ANALYSIS

STANDARDIZED TEST RESULTS

COLUMN INSTRUCTIONS:

COLUMN 1: Provide the name and level of the test used.
COLUMNS 2–3: Provide DAY, MONTH, and YEAR of pre- and post-test applications. If you cannot remember the exact dates, please estimate them as closely as possible.
COLUMN 4: Supply the grade level of the children tested. Remember, provide separate information for each grade level if possible
COLUMN 5: Provide the number of children tested.
COLUMN 6: Provide the LOWEST pretest score from all students for whom both pretest and posttest scores are available.
COLUMN 7: Provide the HIGHEST pretest score from all students for whom both pretest and posttest scores are available.
COLUMN 8: Provide an estimate of the average hours the children were involved in the project between PRE- and POST-TESTS.
COLUMNS 9–10: Provide the pre- and post-test averages in grade equivalent scores.
COLUMNS 11–12: Provide the difference between pre- and post-test averages.

TEST NAME AND LEVEL OF TEST	WHEN ADMINISTERED (Day, Month and Year)		GRADE	NUMBER OF STUDENTS	PRETEST SCORE		AVERAGE NUMBER OF HOURS CHILDREN INVOLVED IN PROJECT	PRE TEST AVG.	POST TEST AVG.	AMOUNT OF CHANGE	
	Pre	Post			Lowest	Highest				Gain	Loss
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
sts of Basic xperiences	5/30/72	5/20/73	pre sch.	43	2%ile	98%ile		83%ile	71 %ile		12 %ile
is-Lennon Tests mental ability	5/21/72	5/21/73	1&2	107	DIQ 75	DIQ 145		DIQ 106	DIQ 106	none	
anford Prim. I ragraph meaning	5/18/72	5/18/73	2&3	62	.08	6.4		2.71	3.89	1.18	
Word Mean	"	"	"	"	.05	4.7		2.66	3.75	1.09	
Spelling	"	"	"	"	.00	5.7		2.96	3.81	.85	
Word Study	"	"	"	"	.00	6.7		2.90	4.45	1.55	
Arith. Comp.	"	"	"	"	.00	5.6		2.78	3.54	.76	

Was any statistical analysis of the data undertaken?

[X] a. Yes
[ ] b. No

If analysis was undertaken, which of the following was used? (Check All That Apply

X a. Chi Square
X b. T-Test
X c. Analysis of Variance (as check on homogeneity of variance)
X d. Analysis of Covariance
e. Pearson Product-Moment Correlation
f. Other (describe) Sign test

CTION H: FINDINGS

List statistically significant findings.

X's = Experimental Group (ORFF)
C's = Comparison Group

MAY 1973 Analyses

a. Grade 1 C's surpass grade I X's in Otis Lennon DIQ (lol vs. 107)

b. Grade 2 C's surpass grade 2 X's in Otis Lennon DIQ. (104 vs. 107)

c. Grade 1 X's surpass Grade 1 C's on SAT, "Word Study" subtest

d. Grade 3 X's surpass Grade 3 C's on SAT "Word Study" subtest

e. Grade 3 C's surpass Grade 3 X's on SAT "Arith Comp" subtest

f. Grade 2 C's surpass Grade 3 X's on SAT "Arith Concepts" subtest

g. Grade 3 X's surpass Grade 3 C's on Purdue "Body Image" subtest

h. Grade 2 C's surpass Grade 2 X's on Purdue "Percept-Motor" subtest

i. In grades K-3 X's show more favorable attitudes on M-P attitudinal scale

j.

k.

l.

m.

n.

List educationally significant findings.

a. Orff students with minor exceptions are evidencing achievement consistent with potential.

b. Orff students evidence satisfactory mental and conceptual development

c. Orff students evidence satisfactory perceptual motor development

d. Orff students evidence very favorable attitudes toward self, school and specific subject matter areas

e. Orff teachers evidence endorsement of the program

f. Both ORFF and pupils in regular program are progressing at highly satisfactory rate.

g.

h.

i.

j.

k.

l.

m.

n.

CTION I: RECOMMENDATIONS

PROJECT IMPROVEMENT

What recommendations for project improvement can be based upon your findings? (i.e., What are you going to do differently in the future?)

Relate ORFF programs more closely to curriculum areas of science and arithmetic.

Initiate intensive public relations programs (both intra and extra school) to achieve acceptance of ORFF as a teacher strategy

Possibly establish ORFF training center in Houghton

Interest university teacher education departments in ORFF strategy.

MICHIGAN DEPARTMENT OF EDUCATION

What recommendations can be made to the Michigan Department of Education as a result of your findings? (i.e., Project should be replicated in the southeast area of the State at a rural district or project should be expanded in terms of budget.)

Project should be replicated in other areas serving different school populations.

State Department should assist in dissemination.

State Department should contact university instructional units to create awareness of ORFF strategy.

REPLICATION

At this point in time, what component(s) of this project can and should be replicated by other school districts? (Indicate your reasons.)

All ORFF instructional components may be replicated.

Teacher training may be replicated.

Finally it is a unique teaching strategy introduced in an area that seems rigidly traditional

CTION J: INFORMAL EVALUATIVE RESPONSE

lease use this opportunity, if you so desire, to express any feelings, reactions, concerns, etc. with regard to your project which you el need to be stated.

Evaluator is of the opinion that most relatively sound teaching strategies will yield similar results in cognitive achievement. There is considerable empirical support for this notion. However, other areas of measurement tend to indicate some desirable behaviors in other areas which are being measured.

The ORFF program appears to be uniquely appealing to pupils and appears to benefit them psychologically as well as introduce children to the world of the performing arts.

ECTION K: PROJECT EVALUATION DOCUMENTS

Attach one (1) copy of any evaluation material (including locally developed instruments) available during the first year of operation by your staff or your contracted evaluator. (Please list below all attachments)

Evaluation Report

Evaluation Report

Copper Country Intermediate School District
Title III Project
"Child Development Through the Arts"

Evaluation of the effects of the Orff-Ko-Daly Activity-Centered strategy for elementary instruction employed a design and testing protocol similar to that of 1971-72.

For purposes of evaluation the major project goal "To increase the overall learning process and achievement of children" was more specifically stated as follows:

a. to foster the cognitive or mental development of elementary school children

b. to foster the achievement of elementary school pupils in the basic skills

c. to foster the perceptual and psycho-motor development of elementary school children

d. to improve the attitudes of elementary school age children twoard school and toward self

e. to make available to area children an in-depth introduction to the performing arts

f. to evoke in participating teachers favorable attitudes and performance toward a music and activity oriented teaching strategy (Orff).

The evaluation format was designed to test these stated objectives. The use of a comparison group permitted post-post comparisons of the effects of the teaching strategy in addition to the usual pre-post analyses.

The 1972-73 testing protocol was similar to that previously applied to the project permitting an examination of growth trends throughout its duration. In essence, the basis for a three-year, longitudinal study is established. Since standardized testing must correspond to grade level, only Otis Lennon, Purdue and Stanford achievement test grade equivalent scores may be used for an analysis of developmental trends.

Method:

All testing was conducted in a classroom context in May, 1973, by university students under the supervision of Dr. Douglas Lowry or by classroom teachers. Since the students were enrolled in an educational measurement class and made aware of the importance of test administration to the validity of results, a minimum of contamination from inconsistent testing procedures can be anticipated. Pupils enrolled in ~~six~~ two schools, comparable in social economic status and in location were used for the experimental and comparison samples.

Test data was recorded on an IMB report form by a single individual and key-punched into IMB cards by an experienced operator at the Western Michigan University Computer Center. Key-punching was checked and data analyses run on standard computer programs. These procedures were ~~intended~~ intended to reduce effects of human error to a minimum.

Table 1 below summarizes the standardized testing protocol for 1973. A description of each test will follow.

Instruments:

The Test of Basic Experiences (TOBE)

The Test of Basic Experiences (TOBE) is one of only two group tests of conceptual background available for pre-school children. It was specifically constructed to provide teachers with diagnostic information about young children

TABLE 1
1973 Standardized Testing Program

Dimension	Grade(s)	Test	Subjects
1. Basic Concepts	Pre-school	Tests of Basic Experiences, FML	Exp's/Controls
2. Mental Development	One, two, three	Otis-Lennon Elementary I FM.5	Exp's/Controls
3. Achievement	One, two, three	Stanford, Prim. I (w)	Exp's/Controls
4. Musical Concepts	One, two, three	M-M Musicality Test	Exp's/Controls
5. Perceptual-Motor Development	One, two, three	Prudue Psycho-Motor Survey	Exp's/Controls

enrolled in programs such as Head Start and its development was sponsored by a grant from U.S.O.E.

The TOBE appears to be a highly respectable test of cognitive development and experimental background and has highly satisfactory psychometric properties. Considerable technical data is available for a test of its recency. The standardization sample for the test included more than 10,000 pupils in schools in selected regions throughout the nation.

The General Concepts Test was used for the present evaluation. It measures readiness of children in four subject matter areas which are necessary to maximize the effectiveness of the regular curriculum in instruction. These are: mathematics, language, science, and social studies. The TOBE yields raw scores, percentiles and stanines to accommodate interpretation.

The Otis-Lennon Test of Mental Ability (OLTMA)

To measure mental ability of first, second and third graders the Otis-Lennon Mental Ability Tests were used. The Otis-Lennon Tests are another group of easily administered and interpreted instruments having commendable psychometric properties.

According to the manual:

> The Otis-Lennon Mental Ability Test series"have been designed to provide comprehensive, carefully articulated assessment of the general mental ability, or scholastic aptitude, of pupils in American schools. Emphasis is placed upon measuring the pupil's facility in reasoning and in dealing abstractly with verbal, symbolic, and figural test content sampling a broad range of cognitive abilities. The new Otis-Lennon tests, like the previous editions in the Otis series, were constructed to yield dependable measurement of the "g" or general intellective ability factor. Thus, the single total score obtained at a given level summarizes the pupil's performance on a wide variety of test materials selected for their contribution to the assessment of this general ability factor."

The nature-nurture controversy concerning the origin of "g" is particularly germane to the present evaluation. In this regard the position of the test authors seems clear. Again quoting the manual:

> It should be clearly understood that the Otis-Lennon tests do not measure the innate mental capacity of the pupil. There is, indeed, no test of mental ability which can support such a claim. A given pupil's performance is the result of many complex, interacting factors which affect his ability to cope with the types of materials presented in the test. As stated above, the tests in the Otis-Lennon series measure broad reasoning abilities. These abilities are important for success in academic or vocational settings where emphasis is placed upon the abstract manipulation of ideas expressed in verbal, numerical, figural, or symbolic form. Performance on tasks measuring these abilities reflects, to some extent, the experiences that the pupil has had in dealing with abstract relationships among words, numbers, or other types of symbols. Inferences about a pupil's performance on these measures should be based upon proper use and interpretation of the normative data accompanying the test, as well as a consideration of various social, economic, and other background factors which may affect his performance. Such use of the tests should result both in increased understanding of the pupil's capabilities at a given time, and in subsequent provision for learning tasks commensurate of these capabilities.

As is the case with most tests of this type, cultural bias is difficult to control. Nevertheless, the Otis-Lennon series undoubtedly are as valid as any other tests of their type and are acceptable for general use.

The Stanford Achievement Tests

The Stanford Achievement Tests which were selected to measure scholastic achievement, are a series of several highly regarded and well tested achievement tests which have excellent psychometric properties. The first edition of the test was published in 1923 and since that time the achievement series has been continuously upgraded and improved both in terms of a psychometric characteristics as well as in ease of administration and interpretation.

The Primary One battery which was employed in the present study, essentially is a reading test since 5 of the 6 sub-tests are directly related to reading achievement. These include, WORD READING, PARAGRAPH MEANING, WORD STUDY, VOCABULARY DEVELOPMENT, and SPELLING. An additional sub-test involves achievement in arithmetic. The Primary II series which was also used, includes two additional sub-tests: arithmetic concepts and science and social studies.

The quality of the Stanford Achievement Test can be seen in such characteristics as the reliability indices which range from .78 to .95 and the norm samples which involve as many as 49,000 students. While the test may be subject to some cultural bias, it certainly is a standard in its field. The SAT is also distinguished by its flexible and comprehensive norms and ease of interpretation which is facilitated by the provision of convenient grade level equivalent scores.

The M-M Musicality Test

A survey of available instruments not only failed to yield a test of musical ability which would measure dimensions relevant to the objectives of the project but also revealed a paucity of instruments for young children. As a result it was necessary to construct a test which group-tested pertinent skills. After several trials it was ascertained that most music objectives could be collapsed under 4 tasks: recognition of upward and downward phrases, recognition of long and short notes, recognition of double and triple meters and recognition of like phrases. Sample items were tried several times. A final version was electronically tape recorded for group testing and used in the evaluation. It is anticipated that further refinements of the musicality test will be desirable.

The Purdue Perceptual-Motor Survey

In addition to tests above, the Purdue Perceptual-Motor Survey was employed to measure the development of perceptual and psycho-motor skills which are so essential to normal development. According to the manual which was published in 1966, the perceptual motor survey is not really a test but a survey which allows the practitioner to observe a broad spectrum of behavior with a structured but not stereotype set of circumstances.

The behaviors which are systematically observed by the Purdue Perceptual Motor Survey seemed particularly relevant to the performing arts project since the program lays stress on the use of rhythms and motor coordination. The Purdue Tests are probably most subject to inaccurate scoring of all tests used in the protocol. Nevertheless, they are undoubtedly the best of their type and yield information which is useful in evaluating the present program.

Fifteen tasks, classified into three categores: Balance and Posture, Body Image and Differentiation, and Perceptual-Motor Match, were used in the present analysis. These tasks require a variety of non-intellective skills and although tedious to administer, the data provided is very useful to project goals.

Testing:

SUBJECTIVE ATTITUDINAL MEASURES

Process and attitudinal data were collected from pupils and teachers and parents using custom structured survey instruments.

The M-P Pupil Attitude Scales:

Pupil attitudes were measured using a 22-item SCAMIN type instrument which prima facie measures attitudes on four basic dimensions which are pertinent to the project. These are (1) Perception of Self and Others, (2) Perception of Self as Learner, (3) General Attitude Toward School, and

(4) Attitude Toward Specific Curriculum Areas.

The M-P Pupil Attitude Scales have been frequently used during the past several years and have been found to discriminate satisfactorily.

Parent and Teacher Interview Scales:

Structured surveys of parent and participating teachers were conducted with questionnaires which sampled opinions on a number of subjects pertinent to the evaluation. These instruments may be seen in the Appendix. Parent survey data will be reported in a supplementary report.

Unobtrusive Data:

Indirect evidence of the success or failure of the project such as absences and tardiness were tabulated and shall be reported in an evaluation supplement.

Results:

Standardized test results are presented below with data reported separately for each specific project goal. Whenever possible pre-post comparisons are displayed in addition to the principal post-post comparison between children enrolled in the Orff program and those not enrolled in the program.

It may be noted that Bartlett's statistic for homogeneity of variance was computed for all experimental vs. control comparisons. The conditions for homogeneity of variance were met in all cases but one and in this instance the chi-square was negligible.

TABLE 2
Summary of TOBE Means, Standard Deviations and T-Tests
Experimentals vs. Controls May, 1973

Group	N	Means		S.D.'s	T's	Prob.
		Raw Score	%ile (Nat. Norms)			
Head Start X's	13	15.46	62.8	5.89	-.62	.54
Head Start C's	9	17.00	71.4	5.45		(NS)
Kindergarten X's	40	17.25	71.5	4.07	-.81	.42
Kindergarten C's	43	17.97	74.0	4.04		(NS)
Combined X's	53	16.81	69.3	4.59	-1.15	.25
Combined C's	52	17.81	73.6	4.28		(NS)

TABLE 3
TOBE Pre-Post Test Results
for May 1972 Head Start Pupils

Dates	N	Raw Score	S.D.	Percentile	Gain
May 1972	40	18.62	5.35	83.7	
May 1973	43	17.25	4.07	71.4	-1.37

TABLE 4
Summary of
Otis-Lennon Means, Standard
Deviations and T-Tests, May, 1973

Group	N	Means		S.D.'s (Raw Score)	T's (Raw Score)	Prob.
		Raw Score	Deviation IQ			
Grade 1 X's	41	33.15	101.15	7.46	-2.77	.01
Grade 1 C's	54	38.09	107.15	9.37		Sig
Grade 2 X's	49	44.63	103.92	11.35	-2.00	.05
Grade 2 C's	59	48.86	107.31	10.60		Sig
Grade 3 X's	54	57.65	107.28	8.97	.37	.71
Grade 3 C's	55	56.91	107.96	10.72		NS
Combined X's	144	46.24	104.39	13.70	-1.20	.23
Combined C's	168	48.05	107.47	12.74		NS

TABLE 5
Pre-Post Otis-Lennon
Comparison May, 1972, Grades 1 & 2
ORFF Students Combined

Grade	Dates	N	Means		Gains	
			Mental Age	DIQ	Mental Age	DIQ
1 & 2	May, 1972	107	7.77	106.09	1.01	-.49
2 & 3	May, 1973	103	8.78	105.60		

TABLE 6
Summary of Stanford Achievement Sub-Test Results
Means, Standard Deviations and T's for
Experimental and Comparison Groups

Sub-Test	Group	N	Mean Raw Score	Grade Score	S.D. (Raw Score)	T	Prob.
Word Meaning	Gr. 1 X's	46	23.50	2.04	6.80	1.32	.19
	Gr. 1 C's	50	21.60	1.95	7.23		
	Gr. 2 X's	41	18.05	2.84	5.81	0.45	.65
	Gr. 2 C's	55	18.60	2.89	6.00		
Paragraph /Meaning/	Gr. 3 X's	49	24.92	3.75	5.93	1.03	.31
	Gr. 3 C's	50	23.80	3.54	5.02		
Paragraph Meaning	Gr. 1 X's	46	18.76	1.86	9.37	1.09	.28
	Gr. 1 C's	52	16.58	1.77	10.15		
	Gr. 2 X's	41	24.90	2.54	11.92	-1.23	.22
	Gr. 2 C's	55	28.18	2.80	13.67		
	Gr. 3 X's	49	39.94	3.89	12.23	1.48	.66
	Gr. 3 C's	50	38.46	3.58	9.88		
Vocabul-arly	Gr. 1 X's	46	19.80	1.74	3.66	-1.11	.27
	Gr. 1 C's	50	20.84	1.92	5.30		
Science	Gr. 2 X's	41	16.51	2.47	3.25	-1.12	.27
	Gr. 2 C's	55	17.38	2.67	4.11		
	Gr. 3 X's	49	21.06	3.42	5.52	-1.34	.18
	Gr. 3 C's	50	22.64	3.77	6.15		
Spelling	Gr. 1 X's	46	13.98	2.32	4.69	1.16	.25
	Gr. 1 C's	49	12.82	2.19	5.03		
	Gr. 2 X's	40	13.93	3.08	6.10	1.05	.30
	Gr. 2 C's	55	12.55	2.93	6.49		
	Gr. 3 X's	49	19.57	3.81	7.14	-1.71	.09
	Gr. 3 C's	50	21.92	4.18	6.56		
Word Study	Gr. 1 X's	46	38.74	2.34	8.62	2.40	.02 *
	Gr. 1 C's	50	34.44	1.92	8.84		
	Gr. 2 X's	41	35.95	3.17	12.64	.03	.97
	Gr. 2 C's	53	36.04	3.17	12.91		
	Gr. 3 X's	49	44.76	4.45	12.58	1.99	.05 *
	Gr. 3 C's	50	40.00	3.61	11.18		

TABLE 6 (continued)

		N				T	Prob.
Language	Gr. 2 X's	41	34.76	2.86	8.49	-.54	.59
	Gr. 2 C's	53	35.76	2.97	9.17		
	Gr. 3 X's	49	42.51	3.68	10.53	0.11	.91
	Gr. 3 C's	50	42.72	3.64	7.56		
Arithmetic Computation	Gr. 1 X's	46	40.46	2.02	8.71	1.29	.20
	Gr. 1 C's	50	37.88	1.93	10.62		
	Gr. 2 X's	41	21.61	2.78	7.52	-.12	.90
	Gr. 2 C's	52	21.79	2.79	6.59		
	Gr. 3 X's	49	32.57	3.54	6.65	-3.40	.001 *
	Gr. 3 C's	50	38.56	4.00	10.44		
Arithmetic Concepts	Gr. 2 X's	41	17.44	2.81	6.64	-2.60	.01 *
	Gr. 2 C's	55	21.00	3.22	6.63		
	Gr. 3 X's	49	25.94	3.83	9.89	-1.27	.21
	Gr. 3 C's	50	28.16	4.08	7.32		
All Tests	Gr. 1 X's			2.05			
	Gr. 1 C's			1.95			
	Gr. 2 X's			2.82			
	Gr. 2 C's			2.93			
	Gr. 3 X's			~~3.80~~ 3.80			
	Gr. 3 C's			3.80			

Goal A:

To foster the cognitive or mental development of elementary school children

Tables 2, 3, 4 and 5 present the results of testing pre-school children with the Tests of Basic Experiences and first, second, and third graders with the Otis-Lennon Mental Ability Tests at the end of the school year. The results reported in these tables will be discussed sequentially.

Table 2, TOBE Means.

Means and percentile scores (based upon national norms) for pre-school students are presented in the table. It will be immediately noted that the number of Head Start students is so small, meaningful interpretation is precluded.

The percentile column is perhaps the most meaningful and suggests that the pre-school pupils are well ahead of national averages in acquiring basic concepts.

Although the comparison group percentiles are higher than those of the experimentals, these differences are negligible. Perhaps more serious is a decline in pre-post raw scores for Orff Head Start students seen in Table 3. While still maintaining rather high status on national norms pupils enrolled in the program show a decrement in raw scores following a year of Orff. These results are not interpretable.

Otis Scores

Perhaps more salient are the differences in Otis-Lennon Mental Ability Test scores seen in Table 4. Raw score differences between Orff and non-Orff students reached statistically significant levels for both first and second

graders. The deviation IQ column suggests that both participants and non-participants are evidencing satisfactory mental development on curriculum-related variables, the record of Lake-Linden students is outstanding. They appear to be a talented group when compared with national averages.

Table 5 presents pre-post data for 1972 first and second grade Orff students combined. These data indicate steady cognitive development with students registering growth in mental age exceeding one year. It will be noted the deviation IQ levels remained at relatively high levels averaging about 106.

Goal B:

To foster the achievement of elementary school pupils in the basic skills.

The nucleus of the evaluation is represented in the lengthy Table 6. The table compares the achievement of project students and non-project students on 6 sub-tests in grade one and 8 sub-tests in grades two and three. Significant differences at the .05 level or greater are designated by an asterisk.

A glance at the "probability" column reveals that in only four instances out of twenty-two did measured differences achieve a statistically significant level. These occured on the "Word Study" sub-test where mean scores for X's surpassed those of the C's in grades one and three and on the arithmetic sub-tests where a reverse trend is noticeable in grades two and three.

The pattern of achievement for children in both experimental and comparison schools is quite similar. Mean grade level achievement for all tests which appear at the end of the table suggest the overall similarity of the two groups. Achievement levels are identical in grade three and only one

month apart in grades one and two. More important is the fact that both groups are acquiring the basic skills at a very satisfactory level as based on national norms.

Some differential patterning of achievement is revealed upon closer examination of the table. For example, Orff students surpass expectations on the Word Study sub-tests. This is essentially a listening test or one of auditory perception in which the student identifies word sounds which are read by the teacher. Grade three Orff students are almost one and one-half years ahead of norms on this dimension. The weakest performance of the Orff pupils occured in "Science and Social Studies Concepts" which measures a pupil's vocabulary in Science and Social Studies areas" including physical science, life science and methods of scientists. Third grade Orff pupils also seem slightly below grade on the "arithmetic Concepts and Arithmetic Computations" sub-tests.

Second graders did not perform particularly well on the "Paragraph Meaning Sub-tests." In all other instances achievement seems highly satisfactory.

It may be noted finally that standard deviations for some tests are rather large indicating in several instances a rather wide dispersion in test scores.

Pre-Post Stanford Scores.

Since several tests of the Primary I and II Stanford batteries are comparable, Table 7 was prepared to indicate the progress of Orff second graders from May, 1972, to May, 1973.

While the number of students tested each year varied somewhat, the pre-post comparisons readily offer an estimate of pupil progress in the Orff program. Gains recorded by these pupils are accelerated on three of

TABLE 7
Pre-Post Mean Stanford Grade Level
Equivalent Scores for Orff 1972 Second Grade Pupils

Sub-test	N	Mean GLE May, 1972	S.D.	N	Mean GLE May, 1973	S.D.	Gain
Paragraph Meaning	62	2.71	.87	49	3.89	1.32	1.18
Word Meaning (Vocabulary)	62	2.66	.65	49	3.75	.92	1.09
Spelling	62	2.96	1.03	49	3.81	.99	.85
Word Study	62	2.90	.57	49	4.45	1.90	1.55
Arithmetic Computation	62	2.78	.78	49	3.54	.44	.76

the five sub-tests, exceeding a full grade. In spelling and arithmetic computation it may be noted that progress was somewhat slower, with pupils failing to achieve grade-level expectations in the arithmetic computation area.

Goal C:

To foster the perceptual and psycho-motor development of elementary school pupils.

A limited number of Purdue Perceptual Motor Surveys were administered to Orff and non-Orff pupils in order to evaluate the extent to which this goal was achieved. The small N's and subjectivity of scoring this test mitigate against the reliability of results and suggest their tentativeness. Considerable caution should be exercised in interpreting the results.

Table 8 indicates that non-Orff pupils fared better than Orff pupils in performing perceptual-motor tasks in all but a single instance. The differences however seem more quantitative than qualitative. Both grade two and grade three pupils appear to be similar in competence with three exceptions. These are indicated by asterisks. It may be noted that the greatest measured difference occured among third graders on the Body Image sub-test. It might be speculated that Orff pupils receive instruction directly related to competencies measured by this test.

Pre-post results for the Purdue test are available but are not reported in tabular form since the number of subjects were changed drastically and the data are not reported in standard interpretable scores. It may be noted however, that mean Purdue scores for 1973 exceeded those of 1972 on all sub-tests.

TABLE 7

Summary of Purdue-Perceptual Motor Survey Results:
Means, Standard Deviations and T-Tests

Sub-Test	Group	N	Mean Raw Score	S.D.	T	Prob
Purdue Total	Gr. 2 X's	18	46.94	2.29	-1.83	.08
	Gr. 2 C's	24	48.13	1.90		
	Gr. 3 X's	19	48.47	1.93	- .05	.96
	Gr. 3 C's	26	48.50	1.66		
Balance and Posture	Gr. 2 X's	18	14.78	.73	-1.53	.13
	Gr. 2 C's	24	15.17	.87		
	Gr. 3 X's	19	14.63	.83	-2.23	.03 X
	Gr. 3 C's	26	15.15	.73		
Body Image	Gr. 2 X's	18	18.11	1.23	- .16	.87
	Gr. 2 C's	24	18.17	.96		
	Gr. 3 X's	19	19.16	.83	3.20	.003 X
	Gr. 3 C's	26	18.48	.70		
Perceptual Motor Match	Gr. 2 X's	18	14.06	1.47	-2.05	.05 X
	Gr. 2 C's	24	14.79	.83		
	Gr. 3 X's	19	14.58	1.22	-1.05	.30
	Gr. 3 C's	26	14.92	.98		

Goal D:

To improve the attitudes of elementary school pupils toward school and toward self.

A partial evaluation of this goal may be seen in the results of responses to the M-P Pupil Attitude Scales which are reported in Table 9. The percentage of pupils choosing a smiling face as opposed to one which is neutral or frowning. Chi-square values are given.

It will be noted that Orff students (South Range) achieved a higher rating in the direction desired on 19 of a possible 22 occasions. The probability of this result occuring by chance (sign test is $< .001$). Certain ratings which reflect favorable attitudes on the part of Orff students may merit attention (i.e., "Myself now" 84% vs. 79%; "Myself as a pupil 84% vs. 71%; "Being at this school next year" 81% vs. 71%, etc.). It seems clear that Orff pupils reacted to this questionnaire more favorably than did non-Orff pupils.

Goal E:

To make available to area children an in-depth introduction to the performing arts.

The achievement of this particular goal cannot be ascertained solely through the administration of a test of musical discrimination. However, in terms of testing, this is the only instrument which applies. The M-M Musicality Test was designed to measure at least one aspect of musical ability relevant to the project. The group administered test requires (1) recognition of like musical phrases, (2) recognition of upward or downward musical scaling, (3) recognition of meter and, (4) discrimination of length of a note.

TABLE 9
Percentage of All Children in Grades K-3
Responding Favorably to Smiling-Faces Questionnaire, 1973

	South Range	Lake Linden	Chi-Square	Prob.
Perceptions of Self & Others				
How do you feel about myself in music class	85	74		
How do you feel about my friends at school	94	96		
How do you feel about my music teacher	94	84		
How do you feel about kids who break rules	18	13		
How do you feel about myself last year	76	71		
How do you feel about myself now	84	79	1.14	NS
Perception of Self as Learner				
How do you feel about myself as a pupil	84	71		
How do you feel about how much I have learned this year	88	85	.36	NS
General Attitude Toward School				
How do you feel about coming to this school	76	78		
How do you feel about what you do at this school	77	71		
How do you feel about sitting still	56	49		
How do you feel about getting to choose what I do	88	82		
How do you feel about moving around alot	70	92		
How do you feel about being at this school next year	81	71		
How do you feel about this school	92	84	4.80	NS
Attitude Toward Specific Curriculum				
How do you feel about my music class	92	83		
How do you feel about reading at school	76	74		
How do you feel about arithmetic at school	63	66		

TABLE 9 (continued)

	South Range	Lake Linden	Chi-Square	Prob.
How do you feel about writing	71	65		
How do you feel about gym	89	93		
How do you feel about art	97	93		
How do you feel about movies at school	99	94	.81	NS
TOTAL			7.74	NS

The results of testing are given in Table 10 with mean scores on each sub-test for Orff and non-Orff pupils compared by grade.

One of the music teachers suggested that the Musicality Test did not have content validity and there is nothing in these results to refute her remark. In general results favor students without Orff training. Thus assuming equal aptitude, the Orff students seem to have achieved less ability to discriminate musicality than those not in an Orff program. These are perplexing results which are undoubtedly explainable in deficiences in the test or the test procedures.

In any case, the result is not crucial to the evaluation of the achievement of Goal E, since there is other non statistical data which needs to be considered.

Goal F:

To evoke in participating teachers, favorable attitudes.

A survey questionnaire was used to sample the opinions of eleven teachers participating in the Orff project. Results are tabulated in and summarized in the appendix.

In reply to the question, "Is teaching with the Orff method an improvement over traditional methods?" 10 of the 11 teachers indicated "Yes" with the eleventh remarking "Somewhat".

Teacher remarks indicate that the method benefits the child psychological-producing improved mental health. This opinion corroborates the findings seen in the pupil attitude survey.

TABLE 10
Musicality Tests, Means, Standard Deviations and T-Tests

Sub-test	Group	N	Mean	S.D.	T-Test	Prob.
Phrase Discrimination	Gr. 2 X's	47	2.92	1.02	-1.39	.17
	Gr. 2 C's	25	3.24	.78		
	Gr. 3 X's	52	3.42	.72	.75	.45
	Gr. 3 C's	25	3.28	.89		
Up & Down	Gr. 2 X's	47	3.34	.92	.76	.45
	Gr. 2 C's	25	3.16	1.03		
	Gr. 3 X's	52	3.44	1.11	-1.90	.06
	Gr. 3 C's	25	3.88	.44		
Meter	Gr. 2 X's	47	2.34	1.20	No T-Test	
	Gr. 2 C's	1	---	---	---	---
	Gr. 3 X's	52	2.77	1.02	- .45	.66
	Gr. 3 C's	25	2.88	1.01		
Note Length	Gr. 2 X's	47	3.02	.72	No T-Test	
	Gr. 2 C's	1	---	---	---	---
	Gr. 3 X's	52	3.39	.71	.12	.91
	Gr. 3 C's	25	3.36	.82		
Total	Gr. 3 X's	52	13.02	1.90	-.84	.40
	Gr. 3 C's	25	13.40			

Summary and Discussion

It is difficult to summarize the many variables which need to be considered in evaluating the Orff program. The following are highly tentative conclusions which seem to be warranted by the results of the 1973 testing program.

A. Mental Development.

Assuming mental development is influenced by teaching strategy, the Orff program seems to promote better development in the grades than in pre-school. This finding contradicts those of 1972. The decrement in TOBE scores for 1972 Head Start students may be the result of many factors: statistical regression, attrition or errors in testing and scoring. On the positive side these students are well ahead of comparable pupils nationally in concept acquisition. Futhermore, deviation IQ's for all pupils enrolled in the program remain relatively high when national norms are used as a basic reference. However, students enrolled in the traditional programs tested as high or higher than Orff students on the Otis-Lennons and TOBE's indicating that either (1) the traditional program has an advantage over Orff in promoting cognitive development or (2) Lake Linden pupils are for some reason, more academically able than South Range Pupils. In any case both programs appear to be promoting mental readiness for school.

B. Academic Achievement.

Similar conclusions may be applied to the evaluation of the extent to which Orff is promoting acquisition of subject matter. The results (~~except~~ with two exceptions in grade 3 ~~in grade 3~~) suggest that Orff pupils are achieving at a satisfactory rate--one which is consistent with potential. The Orff program seems especially amenable in teaching children to attend to teacher direction, to listen carefully and to develop reading skills. Less impressive is the record of

Orff in helping children acquire concepts in science and social studies. The advances in achievement for Orff second graders is especially impressive.

However, when compared to a talented group like pupils enrolled at Lake Linden, it becomes apparent that in the differential success of the Orff program is negligible. The traditional program seems to succeed equally as well in promoting achievement in basic skills with few exceptions.

C. Perceptual-Motor Ability.

The results of testing with the Purdue Perceptual Motor Survey are perplexing and in direct opposition to 1972 data. Except for one major sub-test non-Orff pupils show better progress in this domain. One is tempted to speculate that results were invalidated by uncontrolled variables such as subjectivity in scoring when considering this data. In any event the 1973 Orff cannot claim to be an improvement over a traditional program in generating perceptual-motor competencies.

D. Attitudes.

Perhaps the most lucid evidence of the advantage of the Orff project is seen in the results of the M-P Pupil Attitude Scales. On 19 of 22 items Orff pupils responded more favorably to items measuring self-concept, self-concept as a learner, attitudes toward school and school subjects. According to this survey and teacher statements, Orff pupils are enjoying the time they spend in school more than pupils enrolled in a traditional program, even though both groups evidence favorable attitudes. Thus it seems that in the development of positive affect, Orff can best claim its raison d'etre.

E. Musical Ability.

The data provided by the M-M Musicality Test seem only to attest to the instrument's content invalidity. In view of the training Orff children

have received in considering prior data and in hearing of the unstructured manner in which the test was administered it is recommended that other evidence be used in evaluating the extent to which their goal was achieved.

F. Teacher Attitudes.

Orff teacher surveys indicate almost unanimous endorsement of the strategy. Most of the support seems to be based upon the psychological benefits of the program to pupils.

Recommendations

1. Since comparison achievement were made with a highly talented group analysis of covariance should be applied to achievement test scores holding I.Q. constant.

2. Greater emphasis should be placed upon measures of pupil attitudes and personality in evaluating the Orff program.

3. Third year evaluations should consider longitudinal developmental trends.

4. The Orff method is at the least as successful as a traditional program in eliciting achievement. Further adoption should be tried.

5. Orff teachers should place greater stress on relating Orff to Arithmetic Computations and Science and Social Studies Concepts.

6. A music test suitable for the Orff program still needs to be developed.

7. Testing with the Purdue Perceptual Motor Survey should be more comprehensive and systematic to control for scoring error or testing in this area should be entirely deleted.

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